NAVAL POSTGRADUATE SCHOOL
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THESIS

REVIEW AND EVALUATION OF INTERNAL CONTROL
IN THE DEPARTMENT OF THE NAVY

by

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March 1984

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Topics considered include: the evolution of the term internal control both in the private and public sectors; the theoretical background of R. N. Anthony's planning and control system and his management control process; the

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The research consisted primarily of a detailed search and evaluation of the literature in the area of internal control and management control.

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Review and Evaluation of Internal Control in the Department of the Navy

by

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Topics considered include: the evolution of the term internal control both in the private and public sectors; the theoretical background of R. N. Anthony's planning and control system and his management control process; the establishment and review of internal control systems within both sectors; and illustrative cases which demonstrate the inadequacy of focusing on the narrow interpretation of internal accounting control. It is the author's belief that management control--measures employed by management to reach its objectives--is the only meaningful framework within which the subsets of administrative and accounting controls must be combined for the effective and efficient accomplishment of the organization's objectives, whether of the public or private sector.

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I. INTRODUCTION

A. PURPOSE

As concern over the numerous cases of fraud, waste, abuse, and mismanagement of programs has grown, new legal amendments, directives and standards have been developed to strengthen internal control systems in the Federal Government as a preventive measure. There is a critical need for "... Senior executive Service, Merit Pay, senior military equivalents and other civilian and military employees with significant management responsibilities ..." [Ref. 1] to gain a knowledge and understanding of the concept of internal control and their responsibilities in this area in order to guide the implementation of effective systems within their organization. The purpose of this thesis is to provide the requisite knowledge and understanding for these Department of Defense (DOD) managers.

B. BACKGROUND

Despite the fact that internal controls have not been a major management priority, the recognition of their importance in the Federal Government is not new. The Accounting and Auditing Act of 1950 placed the responsibility for establishing and maintaining adequate systems of internal control upon the head of each executive agency. The Act encompassed not only systems of internal control that provide full disclosure of an agency's financial results, adequate financial

information for agency management purposes, reliable accounting results and suitable integration of agency accounting with Treasury Department accounting, but also systems of internal control that provide effective control over the accountability of all funds, property, and other assets for which the agency is responsible. Thus, as early as 1950, the law clearly indicated that proper systems of accounting and internal control were necessary for program and operational activities, as well as for financial and administrative functions.

Even so, the development of effective systems has been slow. Recent public disclosures of fraud, waste, and abuse, and findings of poor internal controls such as those noted in a study by the U.S. General Accounting Office (GAO) have caused concern among responsible federal officials and taxpayers:

> ... the loss to the Government on the 77,000 cases would total between $150 and $220 million. These losses are only what is attributable to known fraud and other illegal activities investigated by the Federal agencies in this study. It does not include ... the cost of undetected fraud which is probably much higher because weak internal controls allow fraud to flourish ... the cost of fraud and illegal activities cannot always be measured in dollars and cents. Fraud erodes public confidence in the Government's ability to efficiently and effectively manage its programs. [Ref. 2]

Within the last several years increased attention has been directed toward strengthening internal controls to prevent illegal, unauthorized, or questionable actions, to help restore confidence in Government, and to improve its operations. These, and other developments, will be reviewed.

C. SCOPE AND METHODOLOGY

This thesis will provide a review and evaluation of the internal control program in the Department of the Navy.

The evolution of the term internal control will be put into perspective by presenting the development within the private sector and then comparing it to the evolution of the expression in the public sector.

The theoretical background of R. N. Anthony's Planning and Control System and his management control process will be reviewed in order to provide a general structure within which to integrate the specific systems of internal control of the private and public sectors.

Managers in both sectors share the common concerns of obtaining and utilizing resources effectively and efficiently in accomplishing the objectives of their organizations. Yet the definitive literature concerning the subject of establishing and reviewing internal controls provides assistance to independent auditors in their review of financial controls and does not address the spectrum of administrative, as well as, accounting controls necessary to meet managers' requirements. As an assistance, a more comprehensive methodology for establishing an internal control system which emphasizes program and operational controls, as well as financial and administrative ones, is presented for use by federal managers.

The internal accounting controls of the private sector will be integrated within Anthony's management control framework, as will DOD's Planning, Programming, and Budgeting System.

A number of illustrative cases will demonstrate the inadequacy of focusing on the narrow interpretation of internal accounting control when the real intent is management control.

Finally, the conclusion is reached that management control--measures employed by management to reach its objectives--is the only meaningful framework within which the subsets of administrative and accounting controls must be combined for the effective and efficient accomplishment of the organizations' objectives, whether of the public or private sector.

The research consisted primarily of a detailed search and evaluation of the literature in the area of internal control and management control.

II. EVOLUTION OF THE TERM INTERNAL CONTROL

A. INTRODUCTION

The following chapters will compare the development of the concept of internal control in the private sector with the evolution in the public arena. Topics to be considered are: definitional concerns, the establishment of a system of internal control and its purpose, the process of internal control reviews, and finally, a conceptualization of the concept from a management perspective.

B. EVOLUTION OF DEFINITION IN THE PRIVATE SECTOR

A major concern with internal control in the private sector arises from the function of the independent audit -- the independent investigation of a business firm's financial statements by Certified Public Accountants (CPAs). In this context, management of the business firm is responsible for adopting sound accounting policies, accounting procedures, and the presentation of financial data. The independent auditor or CPA, based on his or her review of evidence relating to the reliability of financial data and the safeguarding of assets and records, provides an independent opinion on the fairness of management's presentation of financial data as a basis for third party reliance.

Since the volume of transactions within most commercial firms precludes review of each and every economic event, one

of the ten Generally Accepted Auditing Standards states:

> There is to be a proper study and evaluation of the existing internal control as a basis for reliance thereon and for the determination of the resultant extent of the tests to which auditing procedures are to be restricted. [Ref. 3]

Utilizing this professional standard established by the American Institute of Certified Public Accountants (AICPA) in the late 1940's, the auditor can effectively limit the amount of audit evidence accumulated, if he believes that the client has a system of internal control which provides reliable financial information and protects assets and records. If he determines any of the internal controls are inadequate, he cannot rely on them and must seek a greater quantity of evidence.

Note that this audit standard, as well as the other nine, is broad and does not provide a detailed methodology for accomplishment. It is meant to serve as a guide to the selection of the proper procedures based on the individual auditor's judgment of the pertinent methods appropriate to a situation. In fact, judgment is heavily emphasized in the application of audit standards.

The definition of the term <u>internal control</u> has varied in the private sector since the 1930s.

In 1949 the Committee on Auditing Procedures (CAP) of the AICPA formally defined the term as:

> Internal control comprises the plan of organization and all of the coordinate methods and measures adopted within a business to safeguard its assets, check the accuracy

> and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies. [Ref. 4]

This definition is broader than the meaning presently attributed to the term by practicing auditors. By the inclusion of the phrase " ... promote operational efficiency and encourage adherence to prescribed managerial policies," this statement recognizes that a system of internal control extends beyond those matters which are directly of an accounting or financial nature.

> Such a system might include budgeting control, standard costs, periodic operating reports, statistical analysis ... a training program ... to aid personnel in meeting their responsibilities, and an internal audit staff to provide additional assurance to management as to the adequacy of its outlined procedures and the extent to which they are being carried out. It properly comprehends activities in other fields (such as) time and motion studies ... and use of quality controls. [Ref. 5]

Such a definition was perceived as too expansive for Certified Public Accountants' purposes, so the accounting profession subdivided the term into accounting controls and administrative controls in an effort to narrow the auditor's review as it pertains to his examination leading to the expression of an opinion on financial statements. In response to critics of the above definition of internal control, CAP modified the definition in 1958 as follows:

> <u>Internal control</u>, in the broad sense includes: control which may be characterized as either accounting or administrative as follows:
>
> <u>Accounting controls</u> comprise the plan of organization and all the methods and procedures that are concerned mainly with, and relate directly to the safeguarding of assets and the reliability of the financial records. They

generally include such controls as the systems of authorization and approval, separation of duties concerned with record keeping and accounting reports from those concerned with operations or asset custody, physical controls over assets and internal auditing.

Administrative controls comprise the plan of organization and all the methods and procedures that are concerned mainly with operational efficiency and adherence to managerial policies and usually relate only indirectly to the financial records. They generally include such controls as statistical analysis, time and motion studies, performance reports, employee training programs, and quality controls. [Ref. 6]

In 1963 CAP further narrowed the independent auditor's responsibility for evaluating internal control:

The independent auditor is primarily concerned with the accounting controls. Accounting controls ... generally bear directly and importantly on the reliability of financial records and require evaluation by the auditor. Administrative controls ... ordinarily relate only indirectly to the financial records and thus would not require evaluation. [Ref. 7]

Not everyone agreed with this limitation of the concept which served to narrow the scope of the independent CPA's review. In 1957 Paul Grady, chairman of CAP when the original broad definition was issued, commented on the controversy:

The suggested narrowing of viewpoint, in my opinion, would constitute serious retrogression and impair the foundation of independent auditing. It may sound paradoxical, but there are many endeavors wherein a broader concept of responsibility results in a lesser risk. In the present international situation the recently announced Middle East Policy obviously broadens our responsibility. We have undertaken it, however, in order to lessen the risk of war. Similarly, the broader view of investigation and evaluation of internal control lessens the business risk inherent in the work of the independent auditor. [Ref. 8]

Despite this warning, the auditing profession proceeded to practice the narrower concept. As time passed, the

independent auditor's evaluation of management's policies was found lacking in a number of legal cases. These legal proceedings applied the internal control concept as established in the inclusive 1949 framework when evaluating the auditor's actions.

Because of difficulties in interpretation, CAP felt that clarification of the two types of internal control was desirable. In 1972, the revised statements were promulgated as follows:

> Administrative control includes, but is not limited to the plan of organization and the procedures and records that are concerned with the decision processes leading to management's authorization of transactions. Such authorization is a management function directly associated with the responsibility for achieving the objectives of the organization and is the starting point for establishing accounting control of transactions.
>
> Accounting control comprises the plan of organization and the procedures and records that are concerned with the safeguarding of assets and the reliability of financial records and consequently are designed to provide reasonable assurance that:
>
> - Transactions are executed in accordance with management's general or specific authorization.
>
> - Transactions are recorded as necessary (1) to permit preparation of financial statements in conformity with generally accepted accounting principles or any other criteria applicable to such statements and (2) to maintain accountability for assets.
>
> - Access to assets is permitted only in accordance with management's authorization.
>
> - The recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. [Ref. 9]

The committee emphasized that accounting, not administrative, control was to be the focus of audits.

Ignoring the court's interpretation of internal control in legal actions and the SEC disciplinary proceedings against auditors, in 1975, Statement on Auditing Standards (SAS) No. 9 explicitly narrowed the traditional reference to an evaluation of internal control to read "... evaluation of internal accounting control." This clearly separates internal control into that of a "financial" nature versus "management" control.

During this period of the mid-1970's the Securities and Exchange Commission (SEC) censured several of the large auditing firms for lack of independence and certification of false financial statements and inadequate audit procedures. As a result, the public began to question the reliability of corporate financial statements and the role of the independent auditor. The AICPA requested that the Commission on Auditor's Responsibilities develop conclusions and recommendations regarding the appropriate responsibilities of independent auditors. This commission included a number of prominent non-accountants. Findings included the following:

> The Commission observed that financial reporting has become a continuous process rather than an annual event. Much of the information is therefore, unaudited ... More importantly users are implicitly relying on an adequate system of internal controls. Internal controls assure that unaudited information released by corporations is materially accurate. The Commission observed the societal concern over illegal and questionable corporate

> payments and the attention focused on corporate accountability and the importance of controls over the accounting system. The Commission noted that the adequacy of internal controls is an important investment criterion to creditors and shareholders. The Commission ... recommended that the auditors expand their study to review and test the entire accounting control system ... greater involvement of the auditor in the corporate reporting system and a change in the auditor's focus ... to the examination of a function. [Ref. 10]

Before the Commission on Auditor's Responsibilities issued its final report, the Auditing Standards Board of the AICPA issued SAS No. 20 in December 1977. This statement required auditors to inform management of material weaknesses in internal accounting control but it also continued to limit the scope of the auditor's review:

> "... there is no requirement under generally accepted auditing standards to evaluate each control ..." [Ref. 11]

The independent auditor is only expected to test the controls upon which he intends to rely.

During this same time period, the media reported on several cases of falsified corporate records and maintenance of off-the-books slush funds.

As a result, Congress passed, and President Carter signed, the Foreign Corrupt Practices Act (FCPA) of 1977. Bribes or payments to foreign officials and others to obtain or retain business were indeed prohibited by this legislation but the important provisions required all publicly held companies to establish and maintain adequate systems of internal accounting control defined as:

... a system of internal accounting controls sufficient to provide reasonable assurance that:

- transactions are executed in accordance with management's general or specific authorization

- transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles or any other criteria applicable to such statements, and to maintain accountability for assets

- access to assets is permitted only in accordance with management's general or specific authorization

- the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

Note that these points are directly derived from the professional auditing literature, namely CAP's 1972 clarification of the types of internal control.

In its interpretation of the internal accounting control provisions of the FCPA, the American Bar Association warned:

> ... Foreign bribery is a relatively rare event, but maintenance of financial records and internal accounting controls are major everyday activities of every registered or reporting company ... (this may be) the most extensive application of federal law in internal corporate affairs since the passage of the 1933 and 1934 (security) Acts ... (others) foresee at least the possibility that the new statute will create extensive new liabilities for corporate managements, auditors, and corporate counsel. [Ref. 12]

The AICPA appointed the Special Advisory Committee on Internal Accounting Control to provide guidance to management in reviewing and implementing internal controls. The forward to the Committee's report states that the broad guidance in the professional literature had been developed for the limited purpose of the auditing profession and noted the need to provide guidance helpful to management.

The Committee declared that management should be concerned with all of its internal accounting controls and cited the following broad definition from SAS No. 1 for management's purposes:

> The foregoing definitions (of internal accounting control and administrative control) are not necessarily mutually exclusive because some of the procedures and records comprehended in accounting control may also be involved in administrative control ... For practical purposes, this is tantamount to including within the definition of accounting controls any administrative controls that have an important bearing on the reliability of the financial statements.

Thus the statement underlines the fact that as far as managers are concerned administrative and accounting controls are interrelated and both types reinforce management controls -- measures employed to obtain the organization's objectives.

This discussion was not meant as a historical review of actions in the private sector but rather was an attempt to illustrate the development of the concept of internal control in the private sector from a broad expansive term, to a narrow limited focus for the benefit of the auditing profession and a final recognition by that same profession that management's concerns are broader and that therefore the controls contemplated in the 1949 definition are more appropriate for them.

C. EVOLUTION OF DEFINITION IN THE PUBLIC SECTOR

As part of Reform 88, the Reagan Administration is committed to streamlining the management and administration of the federal government. This initiative includes reducing

fraud, improving management controls and eliminating errors in the administration of government programs.

In October 1981, the Office of Management & Budget (OMB) issued Circular A-123 on internal control systems as an early effort to improve these systems. The circular defined requirements and responsibilities in order to transform the 1950 Act's expectations into reality. It prescribed policies and standards for executive agencies in establishing and maintaining internal controls in their program and administrative functions.

At that time OMB defined <u>Internal Control</u> (as):

> the plan of organization and all of the methods and measures adopted within an agency to safeguard its resources, assure the accuracy and reliability of its information, assure adherence to applicable laws, regulations and policies, and promote operational economy and efficiency. [Ref. 13]

This definition is very similar to the 1949 AICPA broad concept of internal control in that it includes:

OMB Circular	1949 Definition
- the safeguarding of resources	- safeguarding assets
- assuring the accuracy and reliability of its information	- check the accuracy and reliability of its accounting data
- assuring adherence to applicable laws, regulations and policies	- encourage adherence to prescribed managerial policies
- promote operational economy and efficiency	- promote operational efficiency

In fact, based on the parallel construction above, this definition is even more general than the original private

sector statement. In this format, it has served as the basis for much of the guidance promulgated to executive federal agencies.

However, in August 1983, OMB issued a revised Circular A-123 which redefined Internal Control (as):

> the plan of organization and methods and procedures adopted by management to provide reasonable assurance that obligations and costs are in compliance with applicable law; funds, property and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation; and revenues and expenditures applicable to agency operations are properly recorded and accounted for to permit the preparation of accounts and reliable financial and statistical reports and to maintain accountability over the assets. [Ref. 14]

Note that this focus is narrower and related closely to the auditing profession's 1958 delineation of accounting controls. All references to the administrative controls, those of adherence to applicable laws, regulations, and policies and the promotion of operational economy and efficiency have been dropped.

The Department of Defense (DOD) promulgated OMB's original Circular A-123 by issuing DOD Directive 7040.6, Internal Control Systems, 24 March 1982. This document established DOD's program of internal control, assigned responsibilities and provided procedures to ensure that DOD resources are efficiently and effectively managed. It also appropriated OMB's original broad definition of internal control.

A policy statement of the directive served to support the broad formulation of the term:

> Internal controls are <u>management's responsibility</u> and should be in effect across the board in every organization within each DOD component. Adequate internal control is required to assure that all resources are efficiently and effectively managed and is the basic foundation for integrity in any management system. Although internal controls in themselves cannot prevent every incident of waste, mismanagement and fraud, DOD policy is to ensure that resources are properly managed and controlled within the Department of Defense. [Ref. 15]

A revision of DOD's directive is currently in draft form and a review of it indicates that DOD has adopted OMB's revised definition of internal control but has chosen to title it <u>Management Control</u>. It is interesting to note that a number of other definitions within the revision emphasize the "management" control aspect yet use the same meanings OMB has ascribed to internal control with an accounting focus, i.e., management control review, management control system.

The revised paper still retains the original DOD policy statement concerning management's responsibility in relation to internal controls.

In September 1982, Congress passed the Federal Managers' Financial Integrity Act (FMFIA), an amendment to the previously mentioned Accounting and Auditing Act of 1950 which placed the cognizance for the effectiveness of financial management systems in preventing fraud, waste, and abuse upon federal managers.

One provision of the FMFIA requires that:

> Internal accounting and administrative controls ... shall provide reasonable assurances that obligations and costs are in compliance with applicable law; funds, property

> and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation; and revenues and expenditures applicable to agency operations are properly recorded and accounted for. [Ref. 16]

The revised definitions of internal control issued by OMB and DOD are certainly better aligned with the objectives of this provision which does not mention program results or operational economy and efficiency.

Secretary of the Navy Instruction (SECNAVINST 5200.35), Internal Control in the Department of the Navy, was issued on 29 July 1983. It implemented the original versions of OMB's Circular and the DOD Directive, as well as the FMFIA, within the DON and established the Navy's own program to develop, maintain, review and improve internal control systems to ensure resources are efficiently and effectively managed.

Since DON's instruction is based on the first publications of OMB and DOD, one would expect that the Navy's definition would support the broader connotation of internal control and it does:

> ... the plan of organization and all of the methods and measures adopted within the DON to:
>
> -- Safeguard resources and assure the accuracy and reliability of information (accounting controls)
>
> -- Assure adherence to applicable laws, regulations, and policies and promote operational economy and efficiency (administrative controls.
>
> Internal controls are management controls and apply to the entire range of DON programs and functions. [Ref. 17]

Other statements within this instruction also stress the management aspects of internal controls:

> ... implementing and carrying out an internal control program is a management responsibility.
>
> Vulnerability assessment. A management evaluation ... Management control review ... reviews performed by managers responsible for the program/function under review ... [Ref. 18]

It is most likely that DON will revise its recent instruction to better coordinate with the latest guidance from OMB and DOD.

D. CONCLUSION

By now it should be clear that there are a number of similarities in the evolution of the definition of internal control within the private and public sectors. Both have long recognized the importance of adequate systems of control. Both sectors began with a broad definition of internal control and each has moved to a more limited view. Much impetus for current interest in this subject has developed because of recent legislation to correct failings in operations: the FCPA in the private sector and the FMFIA in the public sector. There is little guidance in either sector on specifics; broad direction is all that is provided.

In the private sector, the major portion of the professional literature has been directed toward the purposes of the independent auditor who uses his own evaluation of management's system as a basis to limit the scope of his audit tests in financially related areas.

The public sector has taken the literature originated for these narrow purposes and tried to superimpose it on systems of internal control where a non-independent management has responsibility for its stewardship of all resources.

It is unclear that the approach advocated by the auditing profession and the AICPA is necessarily correct for either public or private sector management. The inclusive interpretation as defined in 1948 can provide administrative, as well as accounting data -- all information management is responsible for. Thus, as Grady stated in 1957, "a broader concept of responsibility results in a lesser risk."

III. SYSTEMS OF INTERNAL CONTROL

A. INTRODUCTION

Management is responsible for establishing and maintaining its system of internal controls in order to provide reliable data, safeguard assets and records, and promote operational efficiency. The pioneer literature in this area of management planning and control systems was published in the 1960's by R. N. Anthony. A discussion of his framework will be presented in this section, as well as descriptions of internal control systems within the private and public domains.

B. ANTHONY'S MANAGEMENT CONTROL FRAMEWORK

1. Planning and Controlling Processes

In his book, Planning and Control Systems: A Framework for Analysis, Anthony presented his concept of systems designed to facilitate planning and control processes within organizations, whether profit or nonprofit.

Within the framework of deciding what to do and how to do it (planning) and assuring results are attained (controlling), three main categories of internal activities carried on in an organization at different times, by different people, or for different situations can be delineated, Figure 1.

Strategic planning is defined as the process of deciding on objectives of the organization, on changes in these objectives, on the resources used to attain these

EXAMPLES OF ACTIVITIES IN A BUSINESS ORGANIZATION INCLUDED IN MAJOR FRAMEWORK HEADINGS

*Strategic Planning	**Management Control	***Operational Control
Choosing company objectives	Formulating budgets	
Planning the organization	Planning staff levels	Controlling hiring
Setting personnel policies	Formulating personnel practices	Implementing policies
Setting financial policies	Working capital planning	Controlling extension
Setting marketing policies	Formulating advertising programs	Controlling placement of advertisements
Setting research policies	Deciding on research projects	
Choosing new product lines	Choosing product improvements	
Acquiring a new division	Deciding on plant rearrangement	Scheduling production
Deciding on non-routine capital expenditures	Deciding on routine capital expenditures	
	Formulating decision rules for operational control	Controlling Inventory
	Measuring, appraising and improving management performance	Measuring, appraising, and improving workers' efficiency

* Planning activities
** Planning & Controlling activities
*** Controlling activities

Figure 1

[Ref. 20]

objectives, and on the policies that are to govern the acquisition, use and disposition of these resources.

"Strategy" is used in its usual sense of combining and employing resources. It connotes big, important plans with major consequences. "Objectives" are what the total organization wishes to accomplish and "policies" are guidelines to be used in the choice of the most appropriate course of action for accomplishing the objectives.

Another type of planning is concerned with the continuing administration of the organization and is closely associated with control activities. This is <u>management control</u>, the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization's goals. Three important ideas are conveyed by this statement: the process involves managers, people who get things done by working with others; the process occurs within a context of objectives and policies that have been arrived at in the strategic planning process; the criteria for judging the actions in this process are effectiveness and efficiency. This is the root of the term as used in the DOD and DON documents mentioned in the previous chapter.

Since the line dividing strategic planning from management control is blurred as one process interacts and shades into the other, figure 2 attempts to delineate significant distinctions between the two processes.

SOME DISTINCTIONS BETWEEN STRATEGIC PLANNING AND MANAGEMENT CONTROL

Characteristic	Strategic Planning	Management Control
Focus of plans	On one aspect at a time	On whole organization
Complexities	Many variables	Less complex
Degree of structure	Unstructured and irregular; each problem different	Rhythmic; prescribed procedures
Nature of information	Tailor made for the problem; more external and predictive; less accurate	Integrated; more internal and historical; more accurate
Communication of information	Relatively simple	Relatively difficult
Purpose of estimates	Show expected results	Lead to desired results
Persons primarily involved	Staff and top management	Line and top management
Number of persons involved	Small	Large
Mental activity	Creative; analytical	Administrative; persuasive
Source discipline	Economics	Social psychology
Planning and control	Planning dominant, but some control	Emphasis on both planning and control
Time horizon	Tends to be long	Tends to be short
End result	Policies and precedents	Action within policies and precedents
Apprisal of the job done	Extremely difficult	Much less difficult

Figure 2 [Ref. 21]

The third element is based on the distinction between the activities referred to as management and activities that relate to the performance of specific tasks.

Operational control is the process of assuring that specific tasks are carried out effectively and efficiently.

Distinguishing characteristics between operational control and management control are that operational control focuses on specific tasks or transactions, whereas management control focuses on the flowing stream of continuing operations; operational control is essentially objective in the sense that it has to do primarily with activities for which the correct decisions can be objectively determined. At least conceptually, and often practically, a valid decision rule can be stated mathematically and programmed into a computer. Management control is essentially subjective in that decisions in this process inherently involve management judgment and there is no objective or "scientific" way of determining the best course of action in a situation.

As with the distinction between strategic planning and management control, the distinction between management control and operational control is ill-defined, the processes overlap and are interrelated. Figure 3 is presented to clarify the categories.

Despite the presentation of these discrete elements, the planning and control process is a continuum. Management control is a process carried on within guidelines established

SOME DISTINCTIONS BETWEEN MANAGEMENT CONTROL AND OPERATIONAL CONTROL

Characteristic	Management Control	Operational Control
Focus of activity	Whole operation	Single task or transaction
Judgment	Relatively much; subjective decisions	Relatively little; reliance on rules
Nature of structure	Psychological	Rational
Nature of information	Integrated; financial data throughout; approximations acceptable; future and historical	Tailormade to the operation; often non-financial; precise; often in real time
Persons primarily involved	Management	Supervisors (or none)
Mental activity	Administrative; persuasive	Follow directions (or none)
Source discipline	Social physchology	Economics; physical sciences
Time horizon	Weeks, months, years	Day-to-day
Type of costs	Managed	Engineered

Figure 3

[Ref. 22]

by strategic planning. Objectives, facilities, organization, and financial factors are accepted as given operational constraints. Operational control takes place within a context of decisions made and rules formulated in the management control process and to some extent in the strategic planning process. Overall performance of operational control activities are reviewed as part of the management control process.

Anthony discusses two other processes distinct from management control. The first is <u>information handling</u>, the process of collecting, manipulating and transmitting information, whatever its use. The author presents two reasons for regarding this process as separate from the other elements. Although useful for planning and control, information is primarily handled for a functional purpose and the system is designed to meet the requirement of these purposes. Also, there is a recognized body of knowledge and skill, an expertise, which identifies information handling as a separate process.

The first three processes are concerned with activities which occur inside an organization. The final process has an external orientation.

<u>Financial accounting</u> is defined as the process of reporting objective financial information about the organization to the outside world. The distinction is made that society has developed certain financial accounting principles to which all businesses are expected to adhere, whereas no such externally imposed principles govern management control

information -- the accounting information useful to internal parties for solving problems and achieving goals.

Figure 4 interrelates the five topics just discussed.

The management control process, the starting point in constructing a planning and control system, will be discussed in more detail below. It is this system which deals with the continuing operation of the whole enterprise.

2. The Management Control Process

In Management Control in Nonprofit Organizations, Anthony and Herzlinger recognize the informal and formal process concerned with an organization's current operations. The informal management control process consists of memoranda, meetings, and conversations. The formal management control system includes information on planned (or estimated) and actual data on outputs, goods and services, and inputs, resources. Prior to actual operations, decisions and estimates are made as to what outputs and inputs are to be; during actual operations, records are maintained as to what output and input actually are; and subsequent to operations, reports are prepared that compare actual outputs and inputs to planned outputs and inputs and action is taken on the basis of these reports.

The formal management control process, figure 5, consists of the following steps which occur in a regular, recurring cycle:

PLANNING AND CONTROL PROCESSES IN ORGANIZATIONS

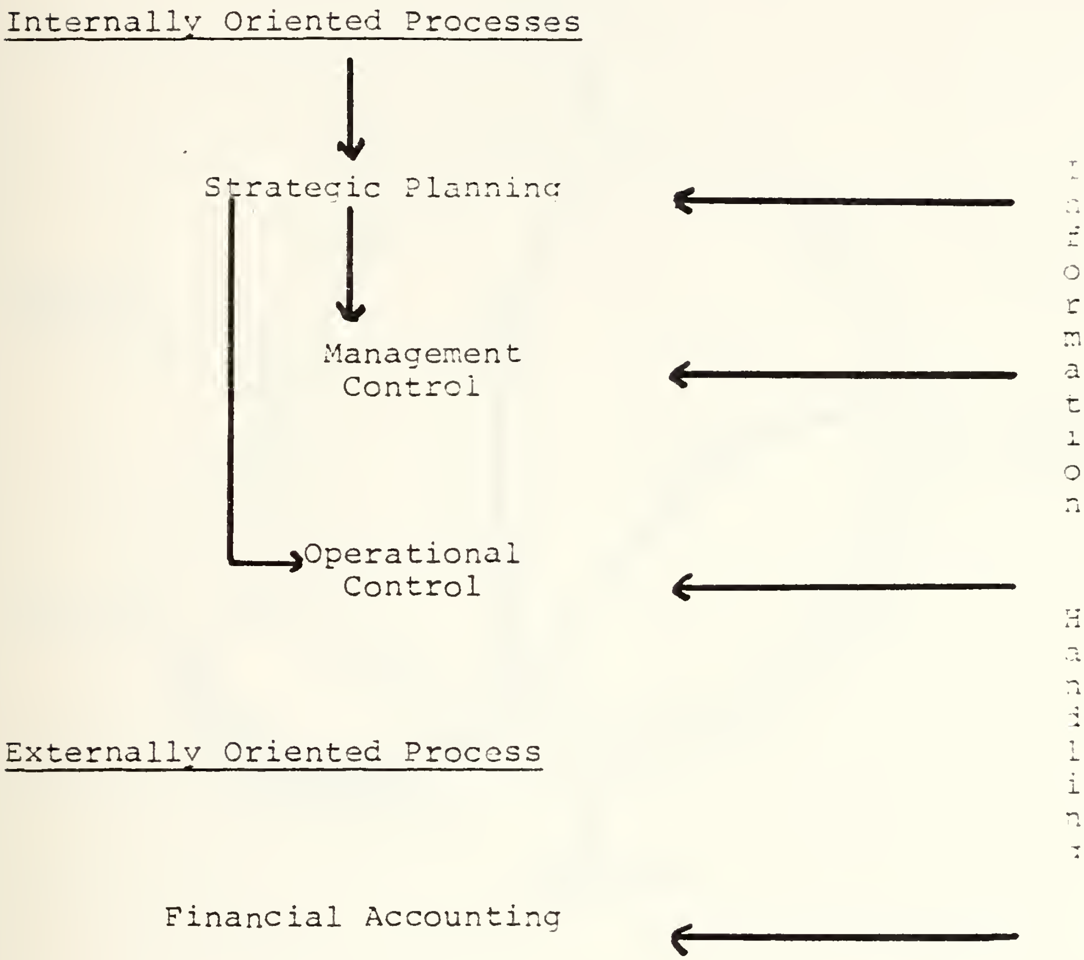

Figure 4

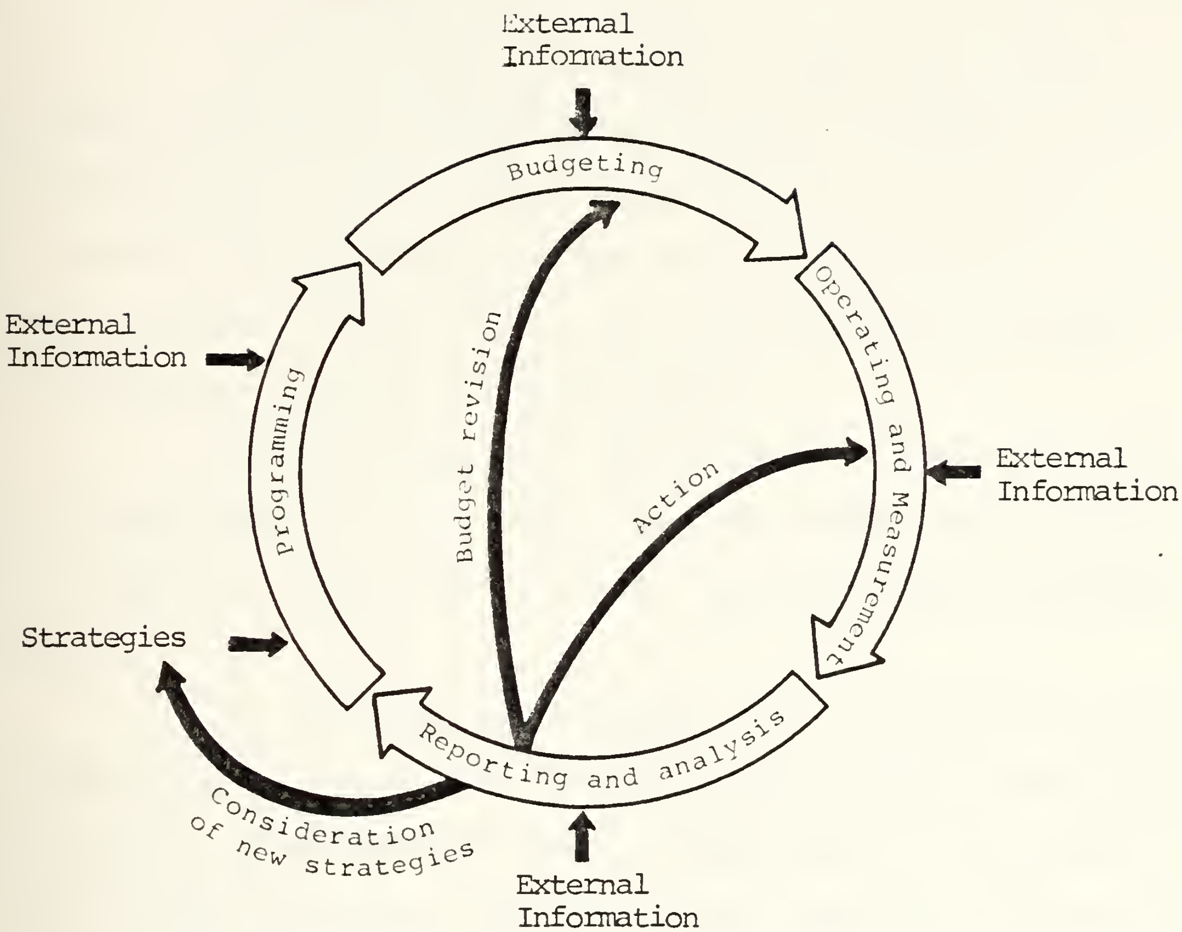

Figure 5

[Ref. 23]

Programming
Budgeting
Operating and Measurement
Reporting and Analysis.

a. Programming

In this phase, decisions are made with respect to the major programs the organization plans to undertake during the coming time period. These decisions are usually made in the context of the objectives and strategies that have already been determined. It is within this step that the strategic and management control processes merge.

Organizations may state their programs in the form of a long-range plan which shows planned outputs and inputs for a number of years ahead, three, five or as many as twenty years.

In an industrial company, the "programs" are usually business lines or products. In a nonprofit organization, the principal programs are the mission areas, such as strategic forces, intelligence and communications, research and development, and training programs within the Navy. The plans state the amount and character of resources, inputs, to be devoted to each program and the ways in which these resources are to be used. The accounting information used at this point is program data and provides full cost information for a specific program.

Where possible, program decisions are based on a comparative economic analysis as to whether the estimated

benefits from the program are equal or greater than the estimated costs. For many programs, particularly in nonprofit organizations, reliable estimates of benefits cannot be made. In these cases, decisions are based on judgments and are influenced by the persuasive abilities of program advocates, and by political and other considerations.

b. Budgeting

A budget is a plan expressed in quantified terms covering a specified period of time, usually one year. In this process, the program is translated into terms that correspond to the sphere of responsibility of those who must execute it. Thus, the plans of the program phase are converted into organizational terms in the budget phase. The process of arriving at this budget is essentially one of negotiation between the managers of individual units, responsibility centers, and their superiors. The end product of the negotiations is a statement of the outputs that are expected during the budget year and the resources that are to be used in achieving these outputs.

This budget is a bilateral commitment. Responsibility center managers commit themselves to produce the planned output with the agreed amount of resources and their superiors commit themselves to agreeing that such performance is satisfactory unless circumstances change.

c. Operating and Management

During the period of actual operations, records are kept of resources actually consumed and outputs actually achieved. The records of resources consumed (costs) are structured so that costs are collected by program and by organization. Program costs are used as a basis for future programming and organization costs are used to measure the performance of the heads of organizational units. Related to the collection of information is the process of internal auditing. It consists of procedures intended to ensure that the information is accurate and that the opportunities for an undetected departure from plans and policies, and for theft or defalcation are kept to a minimum. In organizations of any size, a separate internal auditing organization exists to ensure adherence to these procedures.

d. Reporting and Analysis

Accounting information, as well as nonquantifiable and nonmonetary data is summarized, analyzed and reported to those who are responsible for knowing what is happening in the organization and for improving performance. These reports essentially compare planned outputs and inputs with actual outputs and inputs.

The information is used for three purposes: as a basis for coordinating and controlling the current activities of the organization, as a basis of evaluating operational managers performance, and as a basis for program evaluation.

Thus the closed loop of the four steps of a management control system are demonstrated in that evaluation of actual performance can lead back to the first step, a revision of the program.

Anthony makes some generalizations about management control systems based on his analysis. [Ref. 24]

A formal management control system is a total system in the sense that it embraces all aspects of the organization's operations. Such a total system provides information necessary so that management can ensure all parts of the operation are in balance with one another.

A management control system should be designed so that the actions it leads managers to take in accordance with their perceived self-interest are also actions that are in the best interest of the organization. This is the concept of goal congruence.

A management control system is built around a financial structure with resource expressed in monetary units. Money is the common denominator by means of which the heterogeneous elements of resources can be combined and compared. Thus, the accounting system serves as a unifying core for all types of information. Although this monetary focus is central, nonmonetary measures are also important parts of the system.

A management control system should be a coordinated, integrated system. Data collected for different purposes should be reconcilable with one another.

Even though the controller of an organization is responsible for the design and operation of the management control system, decisions about management control should be made by line managers. Their judgments are incorporated in the approved plans, and they are the persons who must influence others. Staff people, such as the controller, present information that is useful in the process. However, the significant decisions are those of line managers.

Based on this theoretical background of the elements of a planning and control system and the process of management control, the following sections will compare the establishment of systems of internal control in the private and public sector.

C. ESTABLISHMENT OF A SYSTEM OF INTERNAL CONTROL IN THE PRIVATE SECTOR

As organizations strive to attain their objectives, management is responsible for establishing and maintaining its system of internal controls in order to provide reliable data, safeguard assets and records, promote operational efficiency, and encourage adherence to prescribed policies.

1. Transaction Cycles

Since the independent auditor places primary emphasis on the first two of the above concerns, in establishing its system of internal control, the private sector firm emphasizes the general objectives of authorization, accounting, and asset safeguarding to ensure the prevention of errors in the recording

of economic transactions. These general goals are tailored to meet specific objectives within each financial transaction cycle of a particular company. Transaction cycles are the processes used to initiate and perform related activities, create the necessary documentation, and gather and report related data. Traditionally, there are five of these cycles within the private sector:

CYCLE	EXAMPLES OF AREAS INVOLVED
1. REVENUE	Customer acceptance, credit, shipping, sales, sales deductions, cash receipts, receivables, allowance for doubtful accounts, accounting for warranties, etc.
2. EXPENDITURE	Purchasing, payroll, cash disbursements, accounts payable, accrued expenses, etc.
3. PRODUCTION or CONVERSION	Inventory valuation, property accounting, cost of sales, etc.
4. FINANCING	Capital stock and debt, investments, treasury stock, stock options, dividends, etc.
5. EXTERNAL FINANCIAL REPORTING	Preparation of financial statements and related disclosures of other financial information, including controls over financial statement valuation and estimation decisions, selection of accounting principles, unusual or nonrecurring activities and decisions, and those which are not transactional in nature, such as contingencies. [Ref. 25]

Figure 6 shows the flow of financial transactions for each of these cycles and the interrelationship between them. Some firms use a smaller or larger number of these cycles.

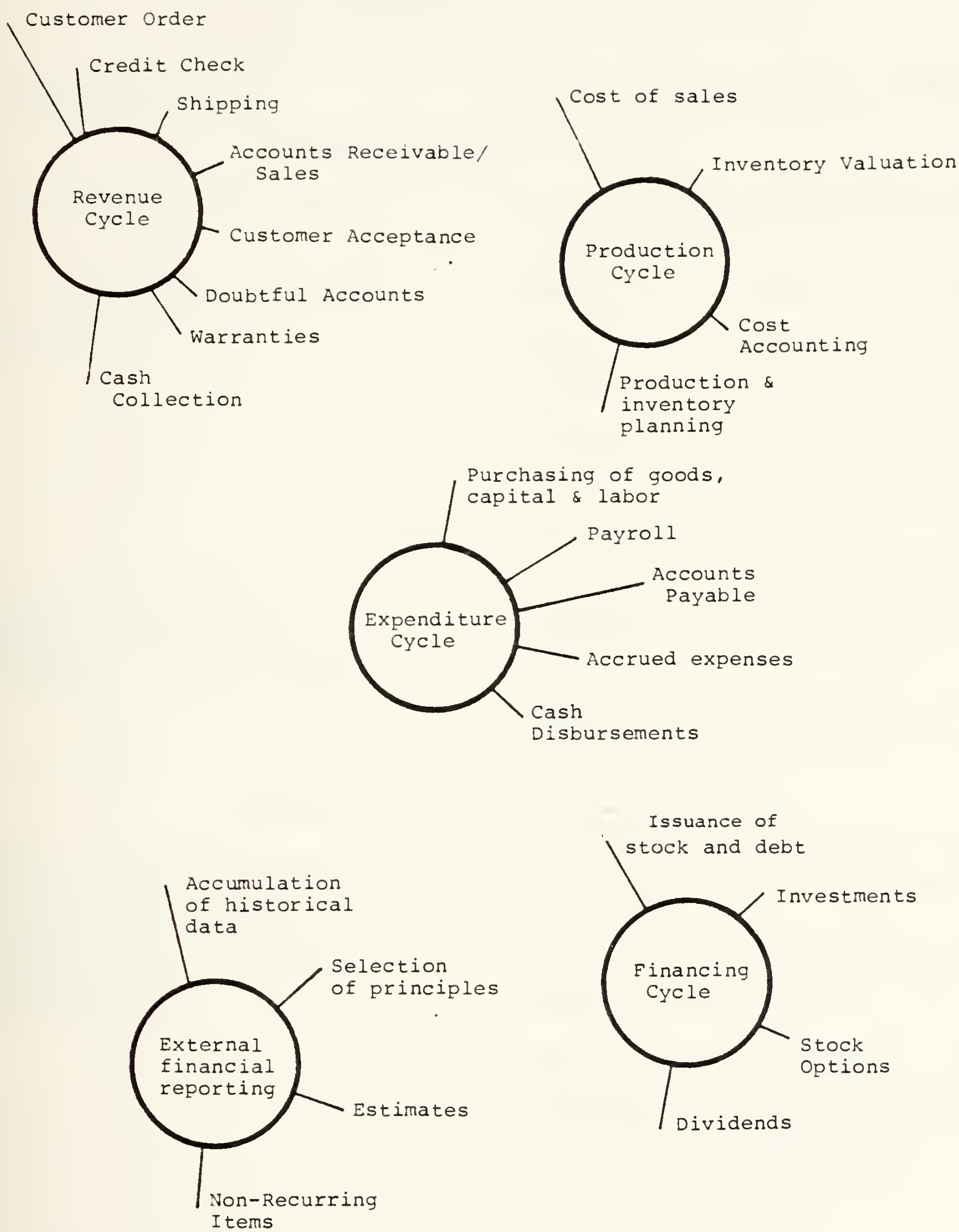
Customer Order
Credit Check
Shipping
Accounts Receivable/ Sales
Revenue Cycle
Customer Acceptance
Doubtful Accounts
Warranties
Cash Collection
Cost of sales
Inventory Valuation
Production Cycle
Cost Accounting
Production & inventory planning
Purchasing of goods, capital & labor
Payroll
Accounts Payable
Expenditure Cycle
Accrued expenses
Cash Disbursements
Issuance of stock and debt
Investments
Financing Cycle
Stock Options
Dividends
Accumulation of historical data
Selection of principles
External financial reporting
Estimates
Non-Recurring Items

Figure 6

2. Specific Control Objectives and Procedures

Within the revenue cycle, specific control objectives with specific control procedures and techniques to ensure they are met are illustrated here:

REVENUE CYCLE

Specific Objectives	Control Procedures and Techniques
Authorization Objectives	
Types of goods and services to be provided	- Authorization procedures for nonstandard goods or services
Credit terms and policies should be properly authorized	- Established credit policies - Policies for investigating customer credit worthiness - Periodic review of credit limits
Accounting Objectives	
Deliveries of goods and services should result in preparation of accurate and timely billing forms.	- Procedures to account for all shipments and comparison of shipments and billings. - Independent checks of quantity of goods shipped.
Asset Safeguarding Objectives	
Access to cash receipts and related records should be controlled to prevent unrecorded cash receipts or abstraction of recorded cash receipts	- Independent control of cash receipts (lock box, cash register) - Restrictive endorsement of checks upon receipt - Segregation of duties: cash receipts, recording of sales, customer credits, accounts receivable. [Ref. 27]

3. Elements of Internal Control

Factors that shape the internal accounting control environment include:

- -- a well-defined organization plan with clear lines of authority and responsibility
- -- competent, trustworthy personnel
- -- adequate segregation of duties
- -- proper procedures for authorization
- -- adequate documents and records
- -- physical controls over assets and records
- -- independent checks on performance.

Along with a proper functional division of the activities of an organization, responsibility for the performance of duties must be specifically assigned so that accountability can be maintained and corrective action implemented as necessary.

The careful selection of competent, trustworthy personnel cannot be overemphasized. Honest, efficient people can perform at a high level even when few other controls are operational.

Adequate segregation of duties includes the separation of the following functions: authorization of, accounting for, custody of, and recordkeeping duties related to assets. An organization structure that allows this separation of duties will lessen the likelihood of fraud but opportunities still exist for collusion or management override.

Each transaction must be properly authorized. General authorizations allow employees to process transactions within the limits set by management policy. Specific authorizations are applied to individual transactions where approval is granted on a case-by-case basis.

Documents and records are the physical objects upon which transactions are entered and summarized. They serve to transmit information through an organization and to other organizations. The documents must provide reasonable assurance that assets are properly controlled and transactions are correctly recorded.

The most important type of protective measure for safeguarding assets and records is the use of physical controls such as inventory storerooms, safes, backup records.

The requirement for internal verification arises because a system tends to change over time unless there is a mechanism for frequent review. Personnel are likely to forget procedures, become careless, or intentionally fail to follow them unless someone is there to observe and evaluate their performance. Fraudulent and unintentional errors are always possible regardless of the quality of the controls. It is important that internal verification be done by a person independent of the original preparer of the data. A "built-in" system of internal verification includes the separation of duties previously discussed.

4. Internal Audit Function

An internal audit staff is widely used by larger firms to review their internal control system. This organization performs many of the same investigative and evaluative functions of the independent auditor. The primary difference is that this staff is not independent of management whereas the independent auditor must be so in order to remain credible with third parties. Although the independent auditor is not permitted to rely entirely on evidence accumulated by internal auditors, the existence of an adequate staff can greatly reduce the evidence he must gather during his external audit.

An important point should be noted here: the internal control system itself is a preventive measure; internal auditors review the operation of an implemented system, a detection measure. With an effective, efficient system, there should be few adverse findings by an internal audit staff.

These elements of internal control were originally defined in 1948 and were reaffirmed by the Special Advisory Committee on Internal Control in 1979.

D. ESTABLISHMENT OF A SYSTEM OF INTERNAL CONTROL IN THE PUBLIC SECTOR

As in the private sector, management in executive federal agencies is responsible for establishing and maintaining internal control systems which prevent the occurrence of potential risks in a cost effective manner.

The public sector has relied heavily on procedures established for commercial business.

1. Event Cycles

The first step in the public sector in setting up a system of internal control is the identification of event cycles. This is the same concept as the financial transaction cycles within the private sector but it has been expanded by the OMB Guidelines for the Evaluation and Improvement of and Reporting on Internal Control Systems in the Federal Government to include each program and administrative function performed within an executive agency or component of it. Appendix B of the Guidelines presents a list of a limited number of event cycles commonly found in federal agencies along with suggested specific internal control objectives for each one. Unfortunately, this appendix does not provide corresponding control techniques to ensure the objectives are met. Such information would be helpful for these specific objectives and serve as a basis for extrapolation to design internal control review processes that are appropriate for each organization's specific objectives within its unique transaction cycles.

Arthur Andersen & Co. suggests an alternative method of organizing the events that affect each agency:

CYCLE	EXAMPLES OF AREAS INVOLVED
1. POLICY AND PLANNING	Policy and plans are developed
2. BUDGET	Budget is approved; appropriations and allotments are made
3. PROGRAM	Resources are used to accomplish agency missions.
4. ADMINISTRATIVE	Resources needed for programs are acquired and controlled
5. REPORTING	Previous events are summarized and reported. [Ref. 28]

The interrelationships of these cycles are shown in figure 7.

Within this proposed methodology, there are numerous program, or mission cycles: grants, loans, income security, defense, regulatory, law enforcement, research and development, information and intelligence, taxation, insurance, production of goods and services, and construction; as well as a number of administrative cycles: personnel, procurement, disbursements, receipts, asset and liability management, and administrative support.

Figure 8 parallels the similar picture from the private sector, illustrating the flow of transactions and the interrelationships between them.

2. Specific Control Objectives and Procedures

To further relate these ideas to the previous discussion of the private sector, specific control objectives with their specific control procedures or techniques for the defense program cycle are shown here.

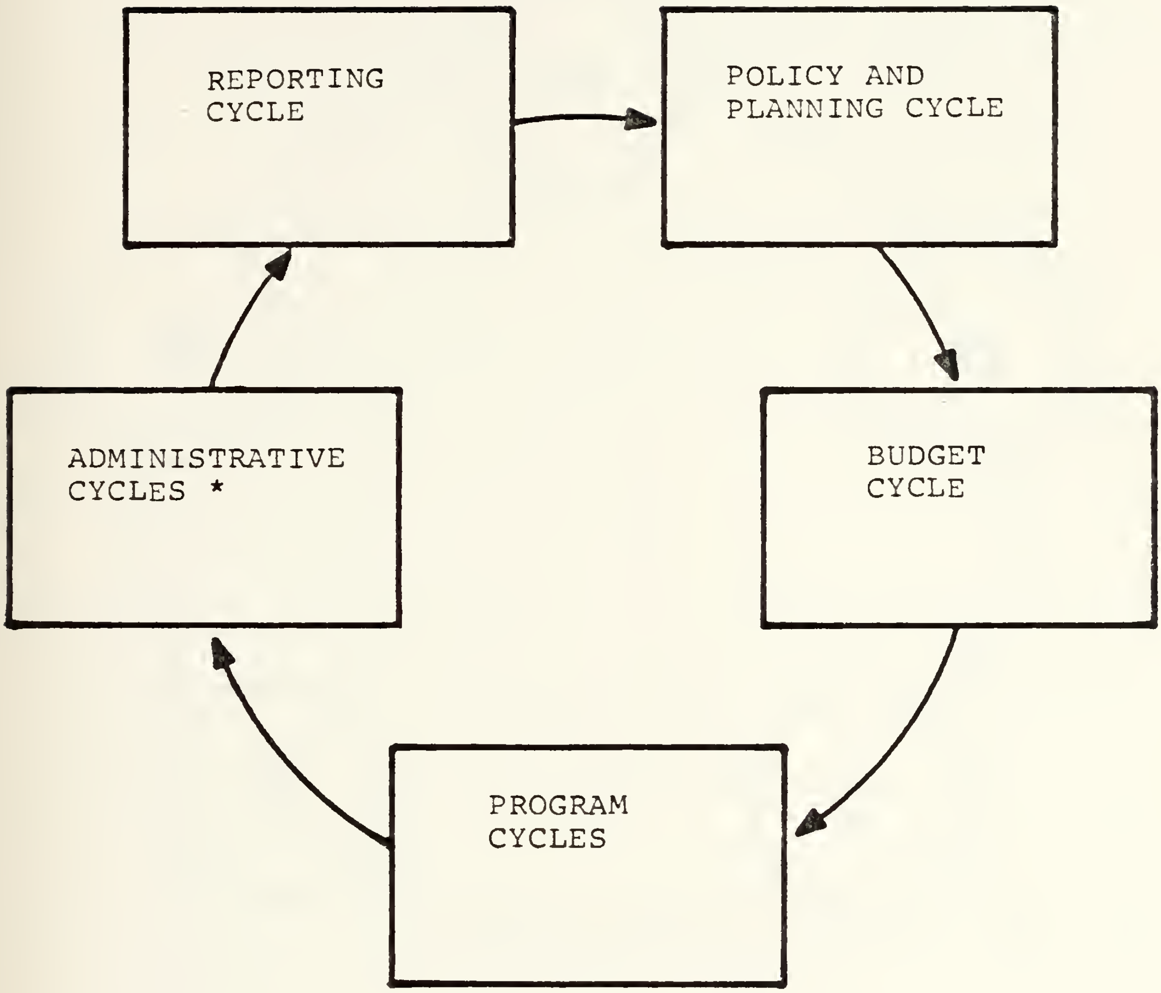

Figure 7

[Ref. 29]

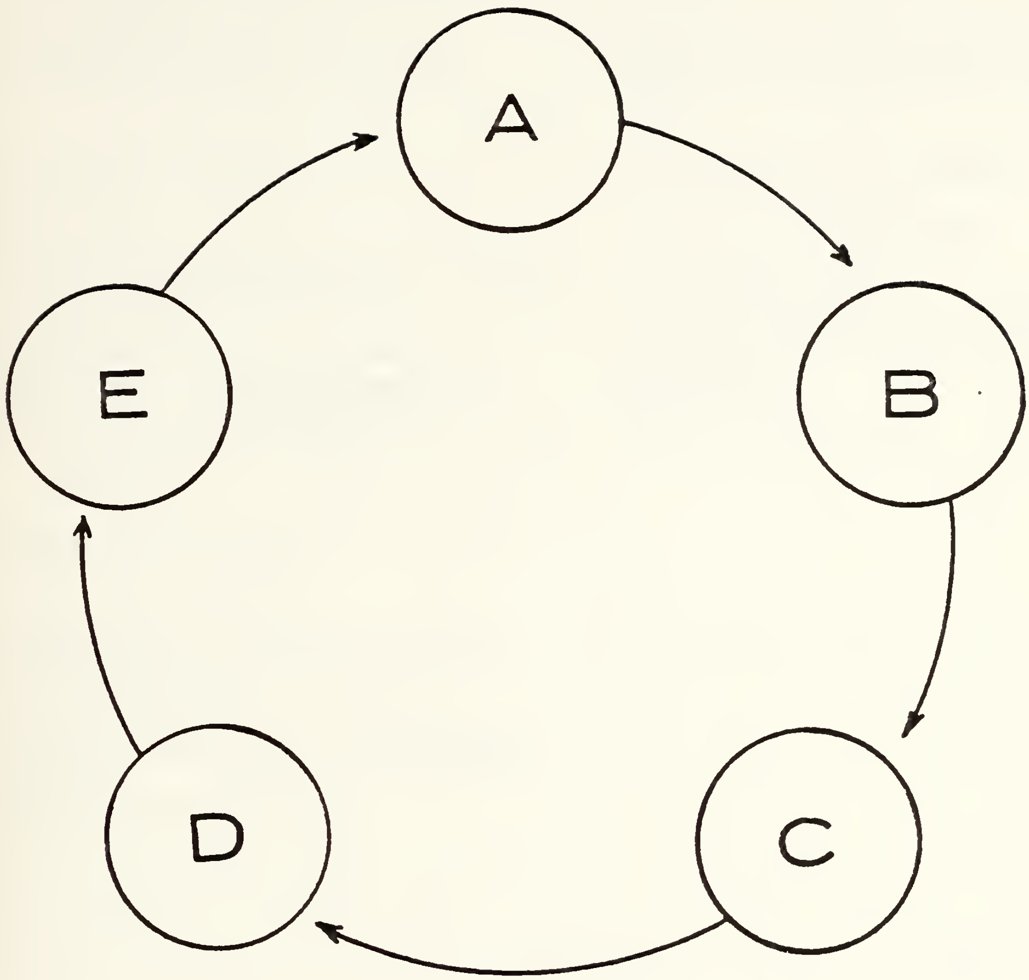

Figure 8

[Ref. 30]

A. <u>Policy & Planning Cycle</u>

Define Objectives
Prepare plans
Define policies
Operational decisions
Asset Safeguarding Measures
Authorize Transactions
Processing
Substantiate, Evaluate Reports

B. <u>Budget Cycle</u>

Plan, schedule process
Develop forms
Train
Coordiante personnel
Consolidate data
Submit budget
Control & communicate changes
Distribute approved budget
Monitor budget vs actual

C. <u>Program Cycle</u>

Planning
Resource Requisition
Develop Standards for Program Execution
Management of resources
Monitor Accomplishment of Program Objectives
Redirection of Resources as needed

D. <u>Administrative Cycle</u>

Draft Bid Requests
Advertise
Evaluate Bids
Acquire property, goods & services
Receiving
Quality Control

E. <u>Reporting Cycle</u>

Record Posting
Gathering of Supplemental Information
Transaction Preparation
Consolidation of Component Data
Report Preparation

[Ref. 30]

Figure 8

DEFENSE PROGRAM CYCLE

Authorization

Specific Objectives	Control Procedures or Techniques
Strategic and tactical defense plans should be authorized in accordance with laws, regulations, treatires, and management policy.	All plans down to the unit and base level are approved by the proper command level.
The command, base, or unit activities should be authorized in accordance with laws, regulations, treaties and the strategic and tactical defense plans	Written defintions of authorized activities for each command, base and unit are provided to commanders. Communication of strategic and tactical plans. Command chain is defined and followed. Communication networks are used to authorize and report actions. Fail-safe approvals are required for critical activities.
The deployment of forces and weapons should be authorized in accordance with laws, regulations, treaties and tactical plans.	Detailed disposition planning. Reports of unit deployments. Reports of weapon inventories are made.
Operating procedures should be established and maintained in accordance with management's policy.	Defined operating procedures. Training.

Transaction Processing*

Specific Objectives	Control Procedures or Techniques
Only those requests to utilize weapons and troops that are in accordance with defense plans and management's policy should be approved.	Automated systems report unit status. Systems report resources available.

	Cost accounting systems linked to operating systems. Inspections held. Physical inventories conducted.
Use of troops and weapons in exercises and other activities should be accurately and promptly reported.	See above.
Materials and supplies, ammunition, fuel and other resources used in conducting exercises and other activities should be accurately and promptly reported.	See above.

<u>Classification*</u>

Activities carried out and related costs should be accurately classified, summarized, and reported.	Cost accounting systems that report costs of resources used. Management review of cost reports. Internal audits of financial records.
Changes in disposition of troops and weapons and related costs should be accurately applied to the proper records.	See above.
Costs of resources utilized in conducting defense activities should be applied in the proper accounting period to the financial systems.	See above.

<u>Physical Safeguards+</u>

Access to weapons and resources should be permitted only in accordance with laws, regulations, treaties and management's policy.	Arsenals and other physical safeguards.

Access to records, forms, processing areas and processing procedures should be permitted only in accordance with law, regulation and management's policy.	Military police. Base physical access controlled.

[Ref. 31]

* Accounting Objectives

+ Asset Safeguarding Objectives

3. Standards for Internal Controls in the Federal Government

The FMFIA requires that " ... internal accounting and administrative controls of each executive agency shall be established in accordance with standards prescribed by the Comptroller General" of the GAO. The definitive standards were issued 1 June 1983. These general and specific standards are a melding of the private sector's general control objectives of authorization, accounting and asset safeguarding and the factors that shape the internal accounting control environment, as well as a few original elements.

a. General Standards

(1) Reasonable Assurance. Control systems are to provide reasonable assurance that the objectives of the system will be accomplished. The standard recognizes that the cost of a control should not exceed the benefits derived therefrom and that the benefits consist of reductions in the risks of failing to achieve the stated control objectives. This evaluation of costs and benefits requires estimates and judgments by management.

(2) Supportive Attitude. Managers and employees are to maintain and demonstrate a positive and supportive attitude toward controls at all times.

(3) Competent Personnel. Managers and employees are to have personal and professional integrity and are to maintain a level of competence that allows them to accomplish their assigned duties, as well as understand the importance of developing and implementing good controls.

(4) Control Objectives. (Specific) control objectives are to be identified or developed for each agency activity (program or administrative function) and are to be logical, applicable, and reasonably complete.

(5) Control Techniques. Control techniques are to be effective and efficient in accomplishing their control objectives. These techniques are to be designed to accomplish the specific control objectives consistently. When in place and functioning properly, these methods and procedures prevent errors and, as such, can be considered strengths in the system of internal control.

b. Specific Standards

(1) Documentation. Control systems and all transactions and other significant events are to be clearly documented and the documentation is to be readily available for examination.

(2) Recording of Transactions and Events. Transactions and other significant events are to be promptly recorded and properly classified.

(3) Execution of Transactions and Events. Transactions and other significant events are to be authorized and executed only by persons acting within the scope of their authority. Independent evidence is to be maintained that proper authorizations are issued and that the transactions conform with the terms of the authorizations.

(4) Separation of Duties. Key duties and responsibilities in authorizing, processing, recording, and reviewing transactions should be separated among individuals. Key duties such as authorizing, approving, and recording transactions, issuing or receiving assets, making payments, and reviewing or auditing are to be assigned to separate individuals to minimize the risk of loss to the government. Internal management control depends largely on the reduced opportunities to make and conceal errors or to engage in, or conceal irregularities. This, in turn, depends on the assignment of work so that no one individual controls all phases of an activity or transaction, thereby creating a situation that permits errors or irregularities to go undetected.

(5) Supervision. Qualified and continuous supervision is to be provided to ensure that control objectives are achieved and to ensure that approved procedures are followed. Lines of personal responsibility and accountability are to be clearly established.

(6) Access to and Accountability for Resources. Access to resources and records is to be limited to authorized individuals, and accountability for the custody and use of resources is to be assigned and maintained. Periodic comparison shall be made of the resources with the recorded accountability to determine whether the two agree. The frequency of the comparison shall be a function of the vulnerability of the asset.

c. Audit Resolution Standard

(1) Prompt Resolution of Audit Findings. Managers are to promptly evaluate findings and recommendations reported by auditors, determine proper actions in response to audit findings and recommendations, and complete, within established timeframes, all actions that correct or otherwise resolve the matters brought to management's attention.

4. Internal Audit Function

As mentioned previously, large private firms maintain internal audit staffs to detect breakdowns in their internal control systems. Corresponding functions in the public sector include internal review, internal audit, and the inspector general.

a. Internal Review

Internal Review is defined by SECNAVINST 7510.8A of 7 December 1982 as the conducting of audits, studies, analyses, or evaluations of command operations. It provides a responsive, independent, in-house means to detect deficiencies,

improprieties, or inefficiencies, and to provide recommendations to correct conditions which adversely affect mission accomplishment or command integrity.

Internal reviews can be used in any operational or functional area to ensure that resources have been employed effectively, efficiently, and within legal and administrative constraints. As stated previously, its purpose is to detect after-the-fact deficiencies, improprieties and inefficiencies as opposed to the preventive objectives of internal control.

The ideal placement of the function is as a staff capacity to the commanding officer to ensure independence from operational activities and objectivity in the internal evaluation of the organization.

A review of the instruction indicates that sections on programming for internal review and the actual conducting of an internal review are closely related to aspects of the internal control program and the function of auditing respectively. As in the internal control program, this program requires an annual activity review plan to provide adequate coverage for functional areas with known or suspected problems and components must prepare an inventory of reviewable areas, the major functions performed by the activity. Consideration is given to expected benefits of a review and the risk associated with not reviewing an area. Priority is

given to reviews in highly vulnerable functions, those activities most susceptible to fraud, waste, or illegal activity as determined by command vulnerability assessments.

The actual conduct of a review parallels the steps auditors would follow in their examination of an organization. Standards, to be discussed below, are specified; reviews address financial, compliance, effectiveness and efficiency, or program issues or a combination of these; reviews evaluate the adequacy of internal controls; the use of audit programs addressed to specific functional areas is encouraged; working papers are to be maintained, the review, reporting, and follow-up procedures all rely on the auditor's approach.

SECNAVINST 7510.8A states internal audit, function of the Naval Audit Service, and internal review are not duplicative, but rather supplemental to each other. Within DON, internal audit tailors its audit coverage in recognition of internal review evaluations. Therefore, internal review efforts complement, rather than duplicate, those of internal audit.

b. Naval Audit Service (NAS)

The Auditor General of the Navy has responsibility for the Navy's internal audit program.

The overall objective of the Naval Audit Service is to assist Navy managers at all levels in the effective discharge of their responsibilities by:

- furnishing objective analyses, appraisals, recommendations, and pertinent comments concerning the activities and programs reviewed;

- determining whether prescribed Navy policies and procedures in any area of operations are being complied with;

- and determining whether the interests of the Government are being adequately protected.

By disclosing the existence of unauthorized or improper practices and the causes of errors, audit provides protective service to management. When management policies are found to be ineffective or procedures are found to be uneconomical, the auditor can recommend appropriate action.

Audit reviews all aspects of operations that involve the use of public funds or resources and makes recommendations to improve the efficiency and effectiveness of operations.

It is NAS policy to conduct audits of naval organizations and programs on a mission-oriented basis. Other functions are examined based upon the degree to which they support mission accomplishment.

Comprehensive audits evaluate the adequacy of policies and procedures, the effectiveness and efficiency of operations and the accuracy of records and reports in both mission and support departments.

c. Inspector General of the Navy

The Inspector General Act of 1978 formally established this function which basically replicated the Service's auditing and internal review roles. In order to increase

economy and efficiency in the executive branch of the government, the Inspector General's basic responsibilities were defined as:

- Conducting and supervising audits and investigations relating to the programs and operations of their agencies;

- Providing leadership and coordination and recommending policies for other activities designed to promote economy and efficiency and prevent and detect fraud and abuse in such programs and operations; and

- Keeping their agency head and the Congress informed about the administrative problems and deficiencies and the necessity for and progress of corrective actions.

5. Standards for Audit of Governmental Organizations, Programs, Activities, and Functions

All three of the above programs must meet the Standards for Audit of Governmental Organizations, Programs, Activities, and Functions issued by the Government Accounting Office (GAO).

As mentioned in Chapter II, the AICPA has adopted standards applicable to private sector audits performed to express opinions on the fairness of the presentation of financial statements.

GAO has incorporated these guidelines into its own standards for government audits but in recognition of the broader interests of many users of government audit reports, has also included additional standards for expanded scope audits.

Officials and employees who manage public programs must be prepared to render a full account of their activities

to public officials, legislators, and the taxpaying public. These parties are interested in knowing whether government funds are properly handled and in compliance with laws and regulations and whether government organizations are achieving the purposes for which programs were authorized and funded and are doing so economically and efficiently.

Therefore, GAO's standards provide for the concept of expanded scope auditing to ensure full accountability. The three elements of expanded scope auditing are:

- Financial and compliance, determines: whether the financial statements present fairly the financial position and whether laws and regulations that have a material effect upon the financial statements have been complied with.

- Economy and efficiency, determines: whether resources are being managed economically and efficiently, the causes of inefficiencies or uneconomical practices, whether laws and regulations concerning economy and efficiency have been complied with.

- Programs Results, determines: whether the desired results or benefits established by the legislature or other authorizing body are being achieved and whether the agency has considered alternatives that might yield desired results at a lower cost. [Ref. 32]

Within the framework of the three elements of the concept of expanded scope audit, the various AICPA and GAO standards are applied. Internal controls are mentioned specifically as described below.

If a particular audit is focused on financial and compliance areas, the AICPA auditing standards are applicable with the following additional requirement in the reporting area:

> The auditors shall report on their study and evaluation of internal accounting controls made as part of the financial and compliance audit. They shall identify as a minimum: (1) the entity's significant internal accounting controls, (2) the controls identified that were evaluated, (3) the controls identified that were not evaluated, and (4) the material weaknesses identified as a result of the evaluation. [Ref. 33]

If a particular audit emphasizes economy and efficiency or program results, the unique GAO examination and evaluation standard requires that:

> During the audit a study and examination shall be made of the internal control system (administrative controls) applicable to the organization, program, activity, or function under audit. [Ref. 34]

A corresponding reporting standard for government audits of economy and efficiency or program results requires that:

> The report shall include ... a description of material weaknesses found in the internal control system (administrative controls). [Ref. 35]

Thus GAO has recognized the importance of administrative and accounting internal controls even though it has separated their reviews in different types of audits. An organization cannot separate its controls in the continuing effort to reach its objectives through effective and efficient management of its resources.

Recognizing that the Navy's instruction on internal control is quite recent but also noting that the original OMB guidance was published in October, 1981, it is still unclear how these similar functions relate and interact with the internal control program.

Office of the Comptroller's (NAVCOMPT) letter of 2 July 82 stated that the majority of internal control reviews are to be performed by Navy Audit Service (NAVAUDSVC) and command or activity internal review components; SECNAV's letter of 5 January 1983 stated that personnel performing internal control reviews may be auditors; internal reviewers, inspectors, supervisors, etc.; and NAVCOMPT's letter of 5 April 83 provided that management (changed from internal) control reviews were to be performed by the managers responsible. It is not surprising that activities have been confused about the integration of these functions.

The best current guidance available makes these distinctions: internal reviews are more structured, are done as a staff function to the commanding officer by personnel independent of operational responsibilities, and the findings are kept within the command, whereas internal control reviews are less structured, are done by the managers involved in the program or administrative function, and the findings are referred up through the chain of command. Internal review staffs are encouraged to provide training and guidance in the design and review of internal control systems, but managers should not actually establish and maintain their own systems in order for the full benefit to be attained.

Further definitive clarification among these functions is greatly needed to distinguish between them and avoid duplication of effort.

E. SUMMARY

Reviewing this chapter, it is clear that neither CPA firms nor the public sector has really integrated its internal control system in the broader framework of management control but rather have chosen to emphasize internal accounting controls which are closely related to operational controls. (Later we will see that corporate management has taken the broader approach to management control.) Such a system does not focus on the wider information needs of managers for administrative, as well as accounting, data necessary to monitor the continuing operations of an organization as it strives to attain program and financial goals.

It is recognized that each organization is unique and internal controls must fit the particular situation but all systems should be integrated in the broader framework of management control.

There is a danger of attempting to adapt the financial auditing literature written for professional auditors' limited purposes (CPA audits) since these writings provide managers with little enlightenment for their decision making and planning and control requirements.

F. LIMITATIONS OF INTERNAL CONTROL

Whether in the public or private sector, the establishment of an internal control system can provide reasonable, but not absolute assurance that the organization's activities

are being accomplished in accordance with its specific objectives.

In SAS No. 1, the AICPA has identified internal control limitations:

> In the performance of most control procedures, there are possibilities for errors arising from such causes as misunderstanding of instructions, mistakes of judgment, and personal carelessness, distraction or fatigue. Furthermore, procedures whose effectiveness depends on segregation of duties obviously can be circumvented by collusion. Similarly, procedures designed to assure the execution and recording of transactions in accordance with management's authorizations may be ineffective against either errors or irregularities perpetrated by management with respect to transactions or to the estimates and judgments required in the preparation of financial statements. In addition to the limitations discussed above, any projection of a current evaluation of internal accounting control to future periods is subject to the risk that the procedures may become inadequate because of changes in conditions and that the degree of compliance with the procedures may deteriorate. [Ref. 36]

Internal control must be dynamic adapting to the ever-changing external and internal environment within which an evolving organization operates. Loss of a key employee, introduction of a new function, activation or de-activation of an activity or facility are all events requiring a decision to determine whether existing controls should be reduced, increased, or simply maintained.

Considerations of cost/benefit and reasonable assurance require management to maintain a constant awareness of system limitations as well as organizational vulnerability and risk. The direct and indirect costs of excessive controls can far outweigh the risks of adequate, but not absolute, control.

IV. REVIEW OF INTERNAL CONTROL SYSTEMS

A. INTRODUCTION

This chapter will compare the review of internal control systems as done in both the private and public sectors and thus demonstrate the closeness of the procedures despite the fact that the examinations of systems were originally intended to have different goals.

B. OVERVIEW OF AUDIT PROCESS IN THE PRIVATE SECTOR

1. Study of the Current System

The private sector auditor begins his review of the internal control system by obtaining a general understanding of the client's industry and the client's specific business since the nature of that business affects the controls a company must have to provide reliable financial data and to safeguard assets. Interviews with the chief financial officer and other key personnel help the auditor develop a knowledge of the formal internal control procedures established by the firm. A detailed organization chart and the procedures manual are useful in studying the prescribed system. The data obtained should provide an overview of the system.

In order to obtain more specific information about the flow of documents and records and the nature of specific internal controls, the auditor uses flowcharts and internal control questionnaires.

A flowchart provides a diagrammatic representation of the client's documents and their sequential flow through the organization. The origin, subsequent processing, and the final disposition of each record is illustrated. The flowchart also provides information concerning the separation of duties, authorizations, approvals and internal verifications that occur within the system, as well as facilitating the identification of inadequacies of present system operations.

The final format of the flowchart should describe the system and procedures <u>actually in place</u> which may be quite different from those established by management. Interviews with involved employees and auditor observation produce this accurate picture.

After the flow diagram is completed, the auditor selects a "sample of one" of each source document described in the flowchart and follows it from its origin to its final disposition -- a "walk-through" test. Increased understanding of the system, as well as disclosure of errors or incomplete portions of the flowchart, are benefits gained by this procedure.

An internal control questionnaire is designed to ask a series of questions about the controls in each audit area as a means of indicating to the auditor aspects of the system that may be inadequate. It is designed to require a yes or no response with a no response indicating potential lack of internal control.

The main advantage of the questionnaire is the relative completeness of coverage of each audit area that a good survey device affords. The main disadvantage is that an overall view of the entire cycle is not provided.

As with flowcharts, it is important to determine whether management's prescribed controls are actually being followed.

2. Preliminary Evaluation of the System - Compliance Testing

Once the independent auditor understands how the internal accounting control system functions, he makes a preliminary assessment of existing controls, noting strengths which prevent errors and weaknesses which permit errors or irregularities.

This preliminary evaluation is done for each financial transaction cycle on an individual basis by testing a representative sample of documents in a walk-through test. Internal control techniques or procedures should have been established to ensure specific control objectives are met. If the auditor finds these methods in place and operational, he can assume that information generated in this area is likely to be correct and therefore, reduce, not eliminate, the extent of his tests for monetary errors (substantive tests). If evidence gathered indicates that internal control techniques have not been established or are not functioning, the auditor's expectation of errors in that area rises and he must increase the amount

of evidence accumulated to ensure that the potential error is immaterial. It is during this phase of the evaluation, called compliance testing, that the auditor identifies material weaknesses (Figure 9) in the internal control systems.

3. Substantive Tests of Financial Balances

Substantive audit tests are tests for monetary errors in transactions and account balances. These tests are partly based on the auditor's recognition of the strengths and weaknesses of the client's internal control system during compliance testing. These further tests are to determine whether the ending balances and footnotes in financial statements are fairly stated. Substantive tests reduce the risk that any material errors that occur will not be detected by the examination.

4. Reevaluation

After all substantive tests are completed, the auditor summarizes his findings for all financial transaction areas to determine if sufficient evidence has been accumulated to issue an audit opinion.

5. Audit Opinion

The type of audit opinion given depends on the results of the compliance and substantive tests. If significant errors have been found, it may be necessary to reevaluate the quality of internal control.

CONSIDERATIONS OF MATERIALITY IN THE PRIVATE SECTOR

The concept of materiality as it relates to auditing is simply that the auditor should concentrate on the financial statement information that is important ... more likely to be significantly misstated ... in a given situation, the auditor must establish whether the account or transaction under consideration contains errors or omissions that, when combined with other possible errors in the statements, will make the overall financial statements misleading.

Important facets:

- Materiality is a relative concept rather than an absolute one.
- Net income is the usual basis for evaluating materiality.
- The combined errors are more important than errors in individual accounts.
- Accounts with small recorded balances can contain material errors.

Figure 9 [Ref. 37]

"As companies contiue to grow, auditing must concentrate on testing management's systems of controls if any semblance of audit efficiency is to be maintained. As auditors rely more and more on management's control systems, they must develop a more pervasive understanding of the client's business and transactions. Thus, the broader definition of internal control may be a more useful approach to performing an effective independent audit. [Ref. 38]

C. OVERVIEW OF THE REVIEW AND UPDATING OF PUBLIC SECTOR INTERNAL CONTROL

OMB's Guidelines for the Evaluation, Improvement of and Reporting on Internal Control Systems in the Federal Government of December 1982 are based primarily on the techniques just described for use by independent auditors in the private sector but are also expanded to encompass controls necessary for program and operational activities. In light of the recent revisions to pertinent documents, it is questionable how long this expanded view will last.

Be that as it may, the public sector segments the review process into three phases, figure 10.

1. Phase 1: Organizing the Evaluation

This phase includes the assignment of internal control responsibilities within agencies and the identification of agency components and programs and functions. The OMB Guidelines provide general instructions in these areas and SECNAVINST 5200.35 addresses Navy particulars.

A point of clarification should be made here: The draft DOD Directive defines the term Assessable Unit as an identified function within an organizational unit with

INTERNAL CONTROL REVIEW PROCESS

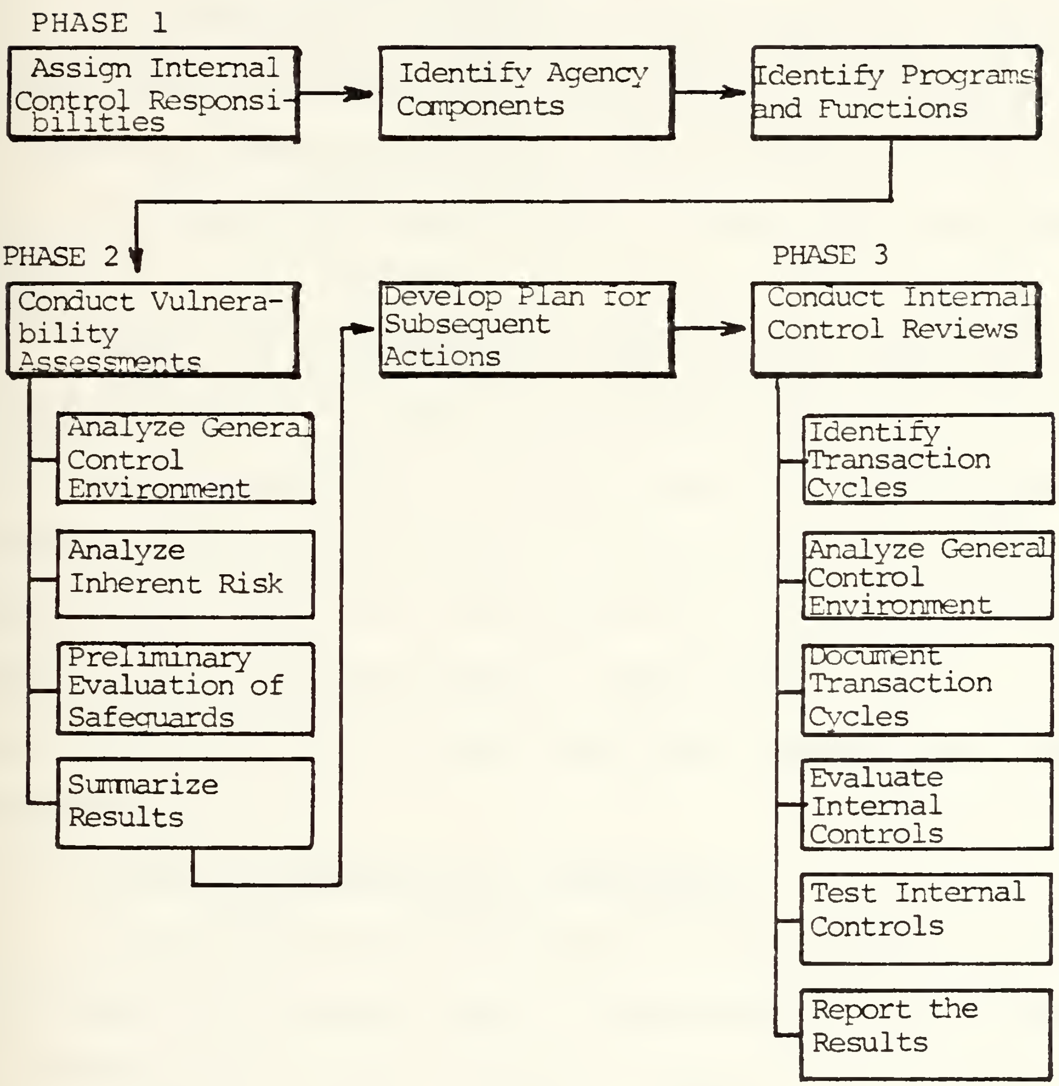

Figure 10

[Ref. 39]

significant management responsibilities. Within each organizational unit, the manager is responsible for developing, maintaining, and monitoring a system of management control regarding the mission function and the common management functions within the organizational unit ... this approach, a combination of organization and functions, provides for an efficient span of control by assigning primary responsibility to the organization unit manager for managing the process (and) performing management control reviews.

According to SECNAVINST 5200.35 each command and activity is to " ... select the programs/functions which represent a significant level of effort within an organization. These major areas should then be broken down into (subprograms/ subfunctions)[1] which are the aspects of the major area performed by the command/activity. For example, "Supply" at a field activity might be broken down into warehousing, SERVMART, shop stores, etc."

2. Phase 2: Vulnerability Assessment

A vulnerability assessment is a management evaluation of a program or function aimed at identifying the potential for mismanagement, loss, fraud, or waste in that program or function. The objective of these assessments is to attain a

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[1]The Navy Instruction uses the term assessable units here. In light of DOD's definition above, the better choice of words is: subprograms/subfunction.

ranking of all programs and functions within an organization in terms of their susceptibility to loss or unauthorized use of resources, errors in reports or information, illegal or unethical acts and/or adverse or unfavorable opinions.

Steps in the vulnerability assessment process include:

a. Analysis of General Control Environment

The factors used here are drawn directly from the GAO document, Executive Reporting on Internal Controls in Government and the previously mentioned AICPA document, Report on the Special Advisory Committee on Internal Accounting Control. They include: management attitude, organization structure, personnel delegation and communication of authority and responsibility, budgeting and reporting practices, and organizational checks and balances.

b. Analysis of Inherent Risk

This second step is the performance of an analysis for each identified program and administrative function of the inherent potential for waste, loss, unauthorized use or misappropriation due to the nature of the program or function.

c. Preliminary Evaluation of Safeguards

A preliminary judgment is made regarding the existence and adequacy of internal control over the specific programs and administrative functions subject to the guidelines.

d. Summarizing the Results of Vulnerability Assessments

The reviewer makes an overall assessment of the adherence of the program or administrative function's internal control system to at least some of the prescribed standards and the vulnerability of the program or administrative function itself. The process and results must be documented and a conclusion reached as to overall vulnerability, e.g., highly vulnerable, requiring a detailed review of internal controls; moderately vulnerable, permitting less intensive and less frequent internal control reviews; absence of vulnerability, etc.

Problems or weaknesses requiring immediate corrective action may be observed during the performance of the vulnerability assessments. Such situations should be brought to the attention of the appropriate agency official as soon as possible so that prompt corrective action can be taken.

3. Develop Plan for Subsequent Actions

Completed vulnerability assessment documents are transmitted to and maintained by the DON Review and Oversight Council which is responsible for the final ranking of programs/functions for DON as a whole. Upon completion of each biennial vulnerability assessment, the Council will prescribe a minimum number of high vulnerability areas which must be reviewed each year.

Many similarities can be drawn between these first two phases of the internal control review process in the public sector with the independent auditor's study and preliminary

evaluation of the client's internal control system. Again, no specifics are provided and each organization must develop procedures useful to its own situation.

4. <u>Phase 3: Conduct Internal Control Reviews</u>

DON's instruction describes management control reviews (also referred to as internal control reviews) as detailed examinations of a program/function to ensure internal controls exist, are documented, and are functioning as intended. These reviews should identify weak, nonexistent, or excessive controls and initiate actions necessary to correct noted deficiencies. <u>Management control reviews are performed at each DON command and activity by the manager responsible for the system of internal controls under review</u>. The scope of a review in a particular program or function should be commensurate with a unit's responsibility in that area.

This process is closely related to the procedures used by the independent auditor for his limited purposes.

The following steps provide the basic approach to performing reviews.

a. Identification of Transaction Cycles

If an effective system as previously described has not been established, then the processes or events leading to accomplishment of a program or function must be described. An organization may have a larger or smaller number of cycles than discussed depending on its unique situation.

b. Analysis of General Control Environment

These are the same general controls mentioned in the vulnerability assessment process. If this analysis was already a part of a vulnerability assessment, then a review of it and update is all that is necessary.

c. Document Transaction Cycles

As in the private sector, flowcharts, accompanied by appropriate narrative descriptions, facilitate the review of current internal controls. Procedures, personnel, and documents and records involved should be identified through interviews and observation. A walk-through test is advisable here too.

d. Evaluate Internal Controls

The next step is to determine if needed specific internal control objectives and corresponding control techniques are in place for each transaction cycle.

Control objectives are established because a risk exists; internal control techniques are implemented to prevent the specific risk from occurring. Pertinent examples have been provided in the previous section which discussed the establishment of an internal control system.

Inherent limitations which constrain an organization's effort to maintain an effective system include: budget constraints, statutory or regulatory restrictions, staffing limitations, etc.

During this step excessive controls should be identified, as well as compensating controls -- those which offset a weak control.

Results of this step include an identification of necessary internal controls, control objectives for which better control techniques are needed, and unnecessary controls that may be eliminated.

e. Test Internal Controls

This step is similar to the auditor's compliance testing. The internal control techniques are tested to determine whether such controls are functioning as intended. Again, a review of a representative sample of transactions is recommended to see whether the general objectives of authorization, accounting and asset safeguarding are met.

During this process, weaknesses and deficiencies in the internal control system should be noted and corrective actions considered.

f. Reporting the Results of Internal Control Reviews

The final step of the internal control review process is concerned with the reports which should result.

(1) Audit Resolution Standard. To comply with the Comptroller General's Audit Resolution Standard, the results should be reported to managers so they may evaluate the findings and recommendations and initiate appropriate corrective actions within established timeframes. Reports

should contain an identification of weaknesses and recommendations to correct them.

(2) <u>FMFIA Statement</u>. Another provision of the Act of 1982 requires an annual statement by 31 December of each year, commencing in 1983, from each agency head to the President and Congress as to whether the agency has established a system of internal accounting and administrative control in accordance with the standards of the Comptroller General and whether this system provides reasonable assurance that the FMFIA objectives are met.

The collective existence of the below listed elements provides evidence that management and other personnel throughout the organization are cognizant of the importance of internal control and that the necessary evaluation and improvement processes are taking place:

- Responsibility for directing the program is assigned to a high level official
- Agency internal control directives and regulations are published and disseminated
- Documentation of the conduct and results of assessments and reviews are maintained
- Documentation of corrective actions taken to strengthen the internal control systems is available
- Inclusion of internal control elements in performance appraisals
- Written assurances from both the designated senior official responsible for coordinating the agency-wide effort and the heads of the agency's various organizational units, and comments from the Auditor General.

The Act also requires an agency to include within the statement to the President and Congress a report listing identified material weaknesses in internal accounting and administrative control and a schedule for their correction. A material weakness (Figure 11) is a situation in which the designed procedures or the degree of operational compliance therewith does not provide reasonable assurance that the FMFIA objectives of internal control are being accomplished.

(3) Report on Agency's Accounting System. An accounting system is an integral part of a management control system since the accounting records and related procedures can contribute significantly to attaining the objectives of the control system.

Therefore, a separate report is also required by the FMFIA attesting to whether or not the agency's accounting system conforms with requirements prescribed by the Comptroller General.

A complete accounting system, for GAO approval purposes, is one established to assist in the financial management functions of budget formulation and execution, proprietary accounting, and financial reporting. It is the total structure of methods and procedures used to record, classify, and report information on the financial position and operations of a governmental unit or any of its funds, balanced account groups, and organizational components. Accounting systems, for approval purposes, shall be comprised of the various

CONSIDERATIONS OF MATERIALITY IN THE PUBLIC SECTOR

A Material Weakness in internal accounting and administrative controls is a condition in which the specific control procedures or the degree of compliance with them do not reduce to a relatively low level, the risk that errors or irregularities having a significant affect on operations may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. In determining what has a significant or material affect on operations, a command should consider such factors as the amount of assets exposed to weaknesses, the number of times errors or irregularities have occurred or a predictable level of occurrence based on historical data, the range and distribution of the errors or irregularities, the effect of a combination of errors or irregularities on operations, and the quality of the overall control environment.

Judgment must be exercised in deciding whether a weakness in internal controls is material. Some common sense guidelines include:

- The dollar amount involved
- Substantial violations of program directives or poor management that could seriously affect program accomplishment
- Resultant requirements for major policy changes that effect monetary or nonmonetary benefits at the DOD level
- The position and degree of responsibility held by persons involved

Figure 11

- The number of persons involved

- The existence of extensive minor deficiencies that become significant in the aggregate

- The likely degree of impact upon unit readiness, security or morale

- The degree of notoriety likely to result

- The existence of a systematic weakness that leaves DON vulnerable to recurring problems.

[Ref. 40]

Figure 11 (cont'd)

operations involving the authorizing, recording, classifying and reporting of financial data related to revenues, expenses, assets, liabilities, and equity. For each of these operations, GAO review for approval will evaluate the procedures and processes from the point a transaction is authorized through processing of data (either manually or automatically) to issuance of financial and management information reports containing data in detail or summary form.

5. The Burns System

To digress a moment, CAPT J. O. Carlson, Ms. J. W. Lewis, and Mr. J. F. Smith, Jr. describe an innovative methodology for the design, maintenance, implementation, and evaluation of a network of internal control for accounting and financial management systems developed for DON by Dr. D. C. Burns.

The best possible identification of all threats against the system is developed. A threat is any adverse impact upon the organization that could result from the operation of the system. The potential impact of the threat is quantified in dollar terms. Risks, the probability or potential of the threat occurring, associated with each threat, are then developed and quantified. The identification of all possible controls, risk reduction processes or actions (internal control techniques), that could apply to the threats is performed. These controls may be manual or automated and can be internal or external to the system or organization.

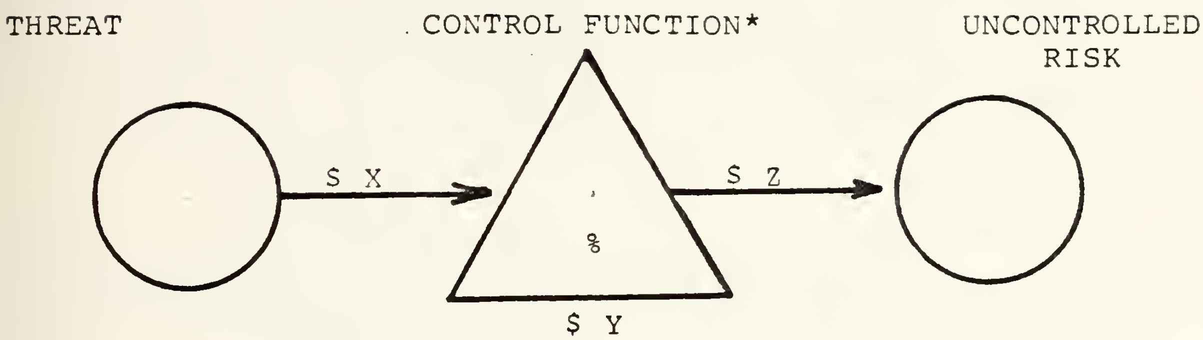
The best possible determination of the percentage of effectiveness provided by each control against each threat is made, recognizing that it is possible for the effectiveness of each control to be different for different threats. The benefits, the result, in dollar terms, of applying a control against each threat, are then determined. This is done by multiplying the quantified threat by the risks and again multiplying this result by the effectiveness of the control. The result is threats, risks, and benefits quantified in dollar terms, Figure 12.

Since controls are threat-specific, the action of all controls against a given threat must be developed along a specific control path for each threat. This path shows threat-specific relationships and control effectiveness, Figure 13.

The next step is to develop a matrix of threats to controls. This shows the possible network of controls for the system. The costs of each control are identified. This results in the cost benefit relationship of the network of controls, Figure 14. Since the Burns System uses a Threat/Control Matrix, the application of the control costs shows not only the cost of a control for each threat, but the comparison of the cost of that control to the benefits of its application against all relevant threats.

The matrix is then analyzed in one or more of a variety of ways. The best possible unrestricted cost beneficial network of controls, the best network of controls

BASIC COMPONENTS OF THE BURNS SYSTEM



STATISTICS / ESTIMATES

$ X = AMOUNT OF RISK POSED BY THE THREAT TO BE CONTROLLED

$ Y = AMOUNT RISK CONTROLLED

$ Z = AMOUNT OF UNCONTROLLED RISK

% = OPERATING CAPABILITY OF CONTROL TO REDUCE THREAT-SPECIFIC RISK, EXPRESSED IN PERCENT TERMS

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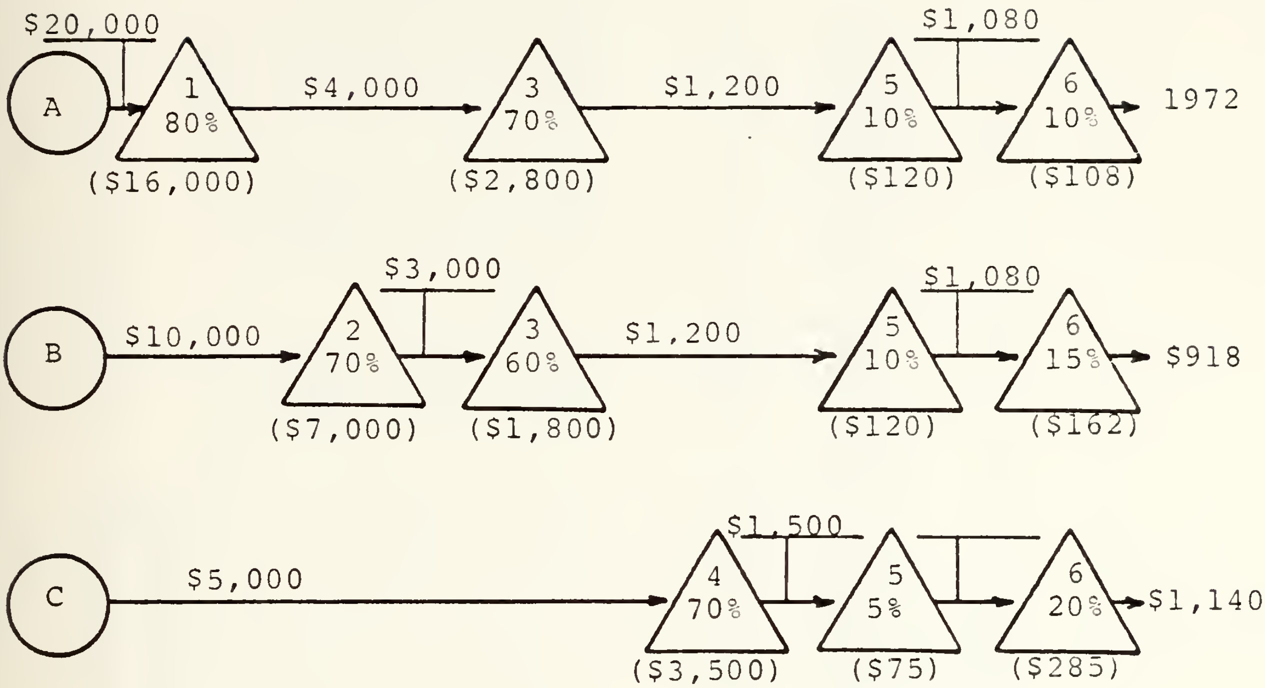
* CONSIDERS BOTH

- INTERNAL AND EXTERNAL CONTROLS
- MANUAL AND AUTOMATED PROCESSES

Figure 12

[Ref. 40]

EACH CONTROL POINT/PROCESS HAS
A UNIQUE EFFECT ON A SPECIFIC THREAT



AGGREGATE SUMMARY

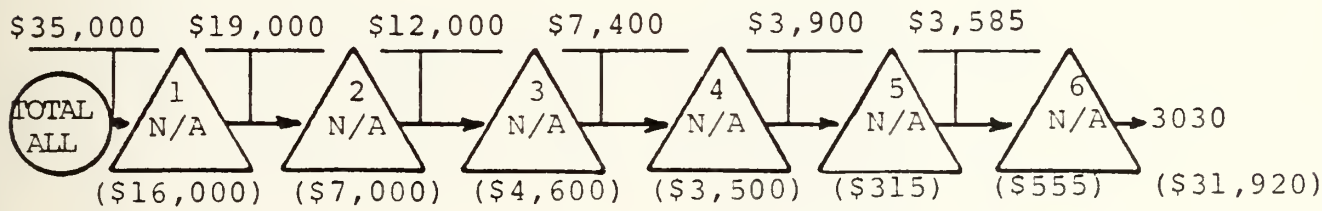


Figure 13

[Ref. 41]

Note that the benefits are the dollar-quanitified reductions in risk (taken from Figures 11 & 12 and are shown at the intersection of each threat and control, and in aggregate for totals.

	CONTROLS WITH ANNUAL VARIABLE COSTS OF EACH CONTROL						
	1	2	3	4	5	6	TOTALS
THREATS							
A	$16,000.00	0	$2,800.00	0	$120.00	$108.00	$19,028.00
B	0	$7,000.00	$1,800.00	0	$120.00	$162.00	$ 9,082.00
C	0	0	0	$3,500.00	$ 75.00	$285.00	$ 3,860.00
GROSS BENEFIT	$16,000.00	$7,000.00	$4,600.00	$3,500.00	$315.00	$555.00	$31,970.00
LESS							
CONTROL COST	$ 6,000.00	$8,000.00	$2,000.00	$ 750.00	$400.00	$450.00	$17,600.00
EQUAL							
NET BENEFIT OR (COST)	$10,000.00	($1,000.00)	$2,600.00	$2,750.00	($ 85.00)	$105.00	$14,370.00

Figure 13

Preliminary analysis shows that the control network as a whole is cost effective since total costs of $17,600.00 is less than gross benefits of $31,970, or a net benefit of $14,370.00. Total network of controls is 1, 2, 3, 4, 5, and 6.

Further analysis shows that the most cost beneficial network of controls is 1,3,4, and 6 because this totals gross benefit of $24,655 less gross costs of $9,200.00 for a net benefit of $15,455.00. This is true because elimination of controls where costs exceed benefits (e.g.; controls 2 and 5) result in a higher net overall net benefit. The difference of $1,085.00 is the excess of cost over benefit for controls 2 and 5.

Figure 14

THIS IS AN ILLUSTRATIVE MOCK-UP FOR THE THREAT/CONTROL MATRIX WITH ALL COSTS AND BENEFITS

under a given cost restriction, or any similar scenario can be identified. A variety of sensitivity analysis simulations, changing any one or combination of variables (e.g.: risk, percentage of effectiveness, etc.) can be performed. All of this is expressed in dollar terms, supported by documentation produced with automated support.

This approach can be useful in the design of cost beneficial networks of accounting and financial management controls, as well as in the identification and evaluation of existing networks of controls.

It should be recognized that this approach is limited to areas of control which can be quantified. It is a less useful method for evaluating controls in program and operational areas where quantitative data is limited or nonexistent. This system reverts to the limited scope of the independent auditor's review of financial data and asset safeguarding measures. It is not designed to consider the internal administrative controls which are also an important part of management's concern. However, if OMB & DOD do move in the direction of focusing on internal accounting controls, this methodology will have useful applications.

D. CONCLUSION

A point requires consideration here: Is the auditor's framework used for the review of accounting controls necessarily adequate for the broader emphasis on administrative,

as well as accounting, controls originally intended by OMB and DOD? More appropriate guidance should stress the review of management controls.

Again, specific guidance is not provided on how to review internal control systems either in the public or private sector. In large organizations, whether profit or nonprofit, broad direction, which must be adapted to each situation, makes the coordination and summarization of the nonuniform reports into a single, cohesive statement difficult.

V. INTERNAL CONTROL - A MANAGEMENT EMPHASIS

A. INTRODUCTION

Both the private and public sector originally accepted the broad interpretation of the concept of internal control. In the private sector, however, independent auditors successfully limited the scope of their responsibility to internal accounting control. Even the AICPA recognized that this definition was inadequate for management's purposes since corporate executives should be concerned with all of the controls contemplated in the inclusive definition of 1949.

Within the federal government, efforts to establish internal control systems have been grounded on CAP's broad interpretation of 1949. An attempt has been made to utilize the professional auditing literature, originated for the narrow purpose of internal accounting control, and expand it to include program and operational functions as well. Now OMB and DOD have revised their definition, moving backwards and much closer to the idea of internal accounting control. It is unclear how this revision will affect the establishment of an internal control system which covers the entire spectrum of an organization's functions. But one thing is certain, such terminology changes serve to create confusion. And it is to be hoped that federal managers will come to recognize their concerns can only be encompassed in the 1949 AICPA statement.

B. "INTERNAL CONTROL -- A MANAGEMENT VIEW"

As part of a larger study on internal control in U.S. corporations, Dr. R. K. Mautz and B. J. White wrote an article, "Internal Control -- a Management View," which proposes a tentative managerial definition of internal (accounting) control and briefly attempts to integrate it within the framework of the Planning and Control process found in organizations. Although the writing is addressed to the private sector, many of the ideas are useful for public sector managers, as well, and thus will be discussed here.

Management's interest in internal control:

> ... is likely to emphasize the positive aspects of internal control measures ... (management is) interested not only in the prevention of errors and irregularities but also in the active accomplishment of the company's objectives. The purpose of control is to get things done ... management's interest is more likely to run to activities to be performed, resources to be utilized and information essential for operational use than would the interests of an auditor concerned with the propriety of financial statements for external use. The totality of management control is coextensive with company operations. Management's controls are intended to plan, initiate, encourage, guide and evaluate the company's activities. Any steps ... influencing operations in order to accomplish the company's objectives can be included in the total control system. [Ref. 44]

Mautz and White see internal (accounting) control as an addition to basic operations -- measures taken to avoid errors and irregularities while operations are in progress. Operations could continue without internal accounting control, although perhaps not as effectively. Without management control, however, operations could not exist.

These authors view control as necessary to see that:

- employees perform certain actions that will have a positive effect in accomplishing the company's objectives
- employees do not engage in activities that would be dysfunctional in accomplishing those objectives
- the company's assets are used for the purposes intended, and no others.

Internal (accounting) control makes much of the safeguarding of assets. From a management perspective, Mautz and White see this concern as less important than utilizing assets in ways appropriate to attaining the organization's goals. There is a great deal of similarity between the above and Anthony's planning and control framework.

Balance sheet assets are not the only resource to be protected from improper use. A company's credit is a resource as is its ability to raise funds. Therefore, the authors suggest the use of the phrase 'utilization and conservation of resources'. It avoids the rather sterile protective implication of safeguarding and is broad enough to include internal control measures for liability and equity items as well.

Management has a dual control problem with information. It must assure an adequate supply of reliable, timely information to the members of the operating management ... Management also has a responsibility to maintain its access to the capital market and ... to meet legal requirements by issuing interim and annual financial statements ... auditors tend

to think of internal control as concerned primarily with this external financial reporting.

Mautz and White next propose a conceptualization of management control with ideal employees: assume a set of conditions in which management need have no concern for internal errors or irregularities since all employees are efficient, prudent, honest, loyal, informed, and none are susceptible to lapses of any kind. With essential instruction and guidance, they are competent and serious in attempting to perform in accordance with company policies, objectives, and plans. In such a situation, the elements of a management control system would include only control measures essential to operations:

- establishment of objectives (policy) for the company and its operating components (conventional function of the board of directors)
- communication of objectives to those responsible for implementation
- implementation (management function)
    - Planning operations to achieve objectives
    - Instructing employees about expected performance
    - Performance
- Review of accomplishment and consideration of need for modification of plans and policies.

The authors suggest additional elements since employees are human and subject to faults and failings:

- Supervision to provide reasonable assurance that employees:

    - perform the activities for which employed and do not undertake actions detrimental to the accomplishment of stated objectives

    - utilize and conserve the company's resources

    - provide an adequate supply of reliable, timely information for internal management purposes and prepare periodic financial statements.

To ensure employee failure does not occur, Mautz and White suggest specific practices and procedures tailored to a company's activities which would be included in the management control system:

- Establishment of objectives for the company and its operating components

- Communication of objectives to those responsible for implementation

- Implementation

    - planning operations to achieve objectives

    - instructing employees on performance

    - performance, including supervision of performance

- Utilization of precautions, incentives, and deterrents to reduce the probability of errors and irregularities and of measures to detect the existence of errors and irregularities if these have occurred

- Reviews of accomplishments and consideration of the need for modification of plans and policies for:

    - effect of outside forces

    - any action needed to reduce the probability of internal errors and irregularities.

Thus, internal (accounting) control measures fit within the management control system and become a part of it once the assumption that employees are subject to errors and irregularities is accepted.

Mautz and White define internal (accounting) control as ... those measures employed by management to attain the objectives of the enterprise that would be unnecessary if all personnel were competent and trustworthy ... measures to remind personnel ... of their duties, to encourage efficiency, prudence, loyalty, and to provide for timely discovery of errors ...

Internal (accounting) control is recognized as part of the total management control system -- measures employed by management to obtain the objectives of the enterprise. It constitutes an identifiable subset of these measures. At the same time, the proposed definition does not encompass any part of policy formation (strategic planning) or operational planning (operational control).

Finally, Mautz and White state that although it is separate from policy formation and operational planning, internal (accounting) control leans heavily on these elements of management control for meaning. It could not be evaluated effectively all by itself. Unless policy goals in the form of reasonably specific objectives are known, there can be no measures to attain them. Unless operating plans exist, supervision of performance loses its meaning. Internal accounting reports must recognize that both objectives and

plans to achieve them (internal administrative controls) are highly relevant to the purpose of reporting, and from a management viewpoint, one aspect of external reporting is to show how well the company has met its objectives.

C. DOD'S PLANNING, PROGRAMMING, BUDGETING SYSTEM (PPBS)

The Department of Defense (DOD) utilizes a similar system of planning and control based on Anthony's framework. The system is grounded upon an assessment of strategic goals and requirements and the quantification of these requirements into budgetary vehicles, following much the same process as described in Anthony's management control process presented in Chapter III. Summarized, this Planning, Programming, and Budgeting System (PPBS) is based on the anticipated threat; a strategy is developed to counter the threat; requirements of the strategy are then estimated; programs are developed to package and execute the strategy; and finally, the costs of approved programs are budgeted.

1. Planning and Programming

The concept of planning within the DOD is meant to fulfill the same role as strategic planning in Anthony's framework. Much as a corporate Board of Directors sets the broad goals and objectives of the corporation, goals and requirements of the DOD are set by high level bodies, such as the Joint Chiefs of Staff, the National Security Council, and the Secretary of Defense, which analyze the threat to the

national defense under varying scenarios. These threat analyses are viewed over long timeframes (10 years or more) considering numerous factors and are published in the Joint Strategic Planning Document (JSPD). From the JSPD, the Secretary of Defense, as the Chief Executive Officer of the DOD, issues his Defense Guidance, which translates the threat requirements into guidance for preparation of the Program Objectives Memoranda (POM).

The basic purpose of the programming phase of the PPBS is to translate the strategy into the program force structures in terms of time-phased resource requirements, including personnel, funding, and material. Most of the emphasis within the DOD and the Services is devoted to development of the weapons systems determined as required to meet the threat, rather than analysis of the threat itself. Further, as the "threat" or "strategy" is less than a quantifiable set of terms, and as the threat is described over a long-term future basis, there is really no firm method to evaluate the developed threats in retrospect. Hence, comparatively little emphasis is placed on the planning phase. This has resulted in the phrase "Planning, the silent 'P' in PPBS."

The POM expresses the total requirements of each of the Services in terms of force structure, manpower, material and costs, to satisfy all assigned functions and responsibilities during the period of the Five Year Defense Program (FYDP).

These requirements are expressed in terms of specific programs within the FYDP, and each of the programs is assigned a specific numerical code, the Program Element Number (PEN). The PEN becomes a vehicle by which the programs may be tracked from the development cycle through execution.

Each of the Services submits its POM to the Secretary of Defense and the Joint Chiefs of Staff for review and eventual approval. The Secretary's review/approval is in the form of Program Decision Memoranda (PDM), which direct the respective service to make an adjustment to a specific program within its POM. The Service's POM, as adjusted by the various PDMs, becomes the guidance to the Service for budget development.

2. Budgeting

The ultimate purpose of the PPBS is to develop the DOD input to the President's budget, which is submitted annually to Congress in the January timeframe. The budgeting phase, however, is more than a mere resubmission of the POM as the budget to Congress is in appropriation format, while the POM was in program format. This becomes a somewhat difficult task as each program utilizes funds from various appropriations, such as Military Personnel, Procurement appropriations, and Operations and Maintenance. The PEN, previously described, becomes a key element in crossing programs to appropriations and back.

Often overlooked in the management control requirements of the DOD is the time-phasing of budget development and budget execution. Budget development, including the planning and programming phases, is being accomplished at the Service headquarters level a year in advance of the President's budget submission to the Congress. Thus, requirements for FY-85 will be submitted to the Congress in January, 1984. These requirements were developed over the course of calendar year 1983. However, budget execution is performed at the activity level, but budget development emphasis at the activity level is for the next fiscal year. That is, in the spring and summer of 1983, the activities are critically evaluating their budget requirements for FY-84. While most activities are required to identify needed resources for FY-85 at the same time, this effort is less than critical in the minds of activity personnel; FY-84 is the most important.

Thus, while the PPBS has the wherewithal to be a powerful management control system, the sheer magnitude of the DOD and the long-term (2 years ahead) budgeting requirements, a break in the management control system exists between the Headquarters levels and the activity levels.

3. Budget Execution

Resources are allocated to activities based upon their identified needs, and based upon the funding appropriated by the Congress. At this point, a further separation of requirements occurs, as funds are passed along

organizational lines. Previously we witnessed requirements identified along program lines, converted to appropriation lines, and now being segregated by activity lines. Save for the program element number (PEN), tracking, for evaluation and control purposes, from requirement in the POM to final accounting of the funds, becomes tantamount to impossible. It should be noted that during execution, costs are aggregated by organization and by program in preparation for reports to managers outside the immediate organization. There is basically no structure for maintaining information useful to managers in the continuing operation of their organization.

Large commands do maintain an internal audit staff to ensure resources have been employed effectively and efficiently and within legal and administrative constraints. In the past, there has been little emphasis on preventive administrative and accounting controls which would lessen the need for the detective function of internal audit.

4. Review and Evaluation

As the stated purpose of the PPBS is the submission of the President's Budget, PPBS does not focus a great deal of attention on the area of review and evaluation. Activities do attempt to avoid the hazards of RS 3678 and 3679 violations and financial, compliance, economy and efficiency, and program audits are done on a relatively regular basis by all levels of audit agencies. However, the institutionalized coordination and control activities focus on meeting

the requirements of outside managers, rather than the internal needs of local managers; operational managers' performance evaluations focus primarily on the level of attainment of mission objectives rather than on budgetary performance; and programs are reviewed at very high levels with rare involvement of personnel at the activity level. Thus, the review and evaluation processes at the activity level are more closely related to operational or internal accounting controls than to management controls.

D. CONCLUSION

Both the private and public sector are capable of establishing a basic structure for the application of management control. However, in reality, the public sector's execution is so far removed from the long-range planning process and the span of operations is so great that overall control is next to impossible to attain. Therefore, form has tended to be accentuated over substance in the public sector.

VI. CASES

A. INTRODUCTION

Since an example is worth a thousand words, a number of representative cases which illustrate the problems and risks of accepting the narrow definition of internal accounting control will be illustrated in this chapter. Some are drawn from the private sector and others are from the public sector but managers in either arena can relate the discussion to their own organization.

B. PRIVATE SECTOR

1. Wily Wilby

This case [Ref. 45] relates the story of a man with an established history of embezzlement in Canada and the United States. Each previous instance had provided a learning experience for him.

The main story revolves around Wilby, alias A. D. Hume, whom our man had met by placing a bogus classified advertisement in a trade journal. When the real Hume departed for military duty during World War II, Wilby took his credentials to a New York employment agency which specialized in CPA's. Despite the fact that the head of the agency knew the real Hume slightly and realized the man before him bore no resemblance to him the embezzler rose above that and was sent on an interview. Hume's impressive

credentials were verified and Wilby gained a new position as an accountant with the William T. Knott Company, a management corporation for a set of department stores which ordered and received their own merchandise and forwarded the invoices on to the parent company for payment.

The Knott Company averaged $40 million in disbursements per year for which the company felt it had a foolproof accounting system. Invoices were carefully compared with the purchase orders. Accountants, clerks, typists, and standard business machines took the approved invoices through a labyrinth bookkeeping system at the end of which checks emerged ready for signature by a check-signing machine prior to mailing. This machine was complicated and mechanically above reproach. Only a few personnel had access to it and only after the proper, secret perforations and notches had been made on certain unmentionable pieces of cardboard -- one for each invoice -- would the machine sign a vendor's check. When the special machine was not working, important pieces of it were locked up in different corners of the same accounting office.

Wilby progressively advanced in the company from traveling accountant to home office accountant with no defalcations. He was next named chief accountant at $6000 per year and was now in a position to make a fortune.

During the first year, Wilby took $110,936.81 which wasn't missed by the company and was not revealed in the

audit. During this timeframe, he was not above taking a personal interest in the business machines, often dazzling the operators by diagnosing their machine's difficulties after a shrewd glance and some sympathetic fingering. At the end of the year, he received a $500 bonus and was named assistant treasurer.

During the next year, he took $275,984.43 and received another year-end bonus.

Wilby and his wife lived modestly; he saved some of his earnings and all he stole was conveniently available in local New York banks.

As chief accountant, Wilby was tied to his position, bringing office records home each evening to work on and taking business trips almost every weekend.

At the beginning of his third year in the position, Wilby asked for a short vacation to take his wife skiing in Canada. Since the previous year's accounts balanced and all was under control, the request was granted.

When Wilby was due to return, the Knott Company received a telegram stating that the man had broken his leg and would be detained -- no location was provided in the message.

After unsuccessful efforts to find him, the company realized its problem and called in the auditors. They discovered that the withdrawals from the Knott account were much higher than the total of the cancelled checks and that a number of the cancelled checks were missing as well.

The embezzler's scheme had been accomplished without difficulty. When the daily mail arrived, it was easy to intercept several envelopes, change the value and name on the original invoices, add a second invoice which duplicated the store's submission, and then adjust the control totals; another approach was to insert bogus invoices for his own vendors and use the secret pieces of cardboard to process them through the standard business machines. Wilby had rented office space where the checks were mailed for arrival on the weekend. On his weekend business trips, he would make sure to deposit them promptly in a local bank for later transfer to the same bank branch that was used by the Knott Company in New York.

When a Toledo bank checked the references of G. B. Towle, one of the ficticious vendors, "Hume" assured it that Towle was a legitimate businessman in the advertising line.

When D. True, an accountant at the Butte, Montana store, raised questions about certain suspicious freight charges debitted against the store, the Knott Company treasurer referred his inquiry to "Hume." In his written response, the investigators found a clue as to how the scheme had worked. By tracing the freight charge through the accounting system, they discovered how the books balanced in spite of the defalcations. The stolen money was charged to the department store and deftly distributed among the stores in different ways and with shrewd knowledge of which accounts

could stand being raised a bit here and there so that the stores wouldn't notice.

When the auditors did their yearly review of the books, the embezzler had allowed them to add all the bank statements and the cancelled checks, including the ones he had endorsed himself, with the result that the withdrawals from the Knott Company bank account tallied with the total of the cancelled checks. Then he had destroyed the cancelled checks he had endorsed and had altered entries in the books, so that, in effect, what the Knott Company had lost to him it got back from the stores, in the form of debits against the stores' accounts. The investigators wondered why Wilby had departed so suddenly since if he had followed through for the current year, he would probably never have been discovered.

As a protective procedure, companies bond their employees. Because the insurance company which had bonded Wilby had a large investment in the case, he was pursued diligently.

It was easy enough to find the real Major Hume and realize he did not meet the description of the embezzler.

Old bank records revealed one of the few careless mistakes of the imposter. When he had purchased a bank draft, Wilby had originally requested that it be made out to his real name. Then he had changed his mind and named Hume as the payee. This was all the police needed to trace Wilby's record and photographs.

After finally apprehending Wilby, the Knott Company was satisfied the embezzler had no human accomplices but the standard business machines were criticized and newly devised safeguards were added to them.

The Federal Bureau of Investigation (FBI) proved to be the reason why Wilby had left the firm so abruptly. At the time this case was occurring, the mid-1940's, the FBI was investigating German names, specifically one F. B. Hecht, who the agency was convinced was a Nazi Fifth Columnist. Hecht had been one of Wilby's ficticious vendors and the local St. Louis bank provided "Hume's" name as a reference to the agency. He provided them misleading information but the agency continued to pursue the issue so Wilby did not wait for the approaching showdown.

Although currently considered a statutory felony, at the time of the Wilby case, embezzlement was not generally considered a crime against the people and perpetrators were often given suspended sentences or short prison terms if they made restitution.

However, the judge in this case felt that if Wilby was given a lenient sentence, he would be foolish if he didn't continue to embezzle. So the judge sentenced him to from five to seven years in Sing Sing and requested his deportation at the completion of the prison term.

So much for the W. T. Knott Company's foolproof system! A review of the factors that shaped the internal

accounting control environment shows just how easy they were to circumvent in this particular situation.

Wilby understood the processes of the accounting system, the duties of its personnel, and the intricacies of the standard business machines so well that he was able to effectively manipulate all the peripheral clerical and administrative procedures surrounding it. Even though the books were in perfect balance when audited (reliable financial records) and the company did not notice any missing funds (safeguarded assets), the true picture indicated that there was little operational effectiveness or efficiency or little adherence to managerial policies (internal administrative controls). And so in the final analysis the accounting controls were inoperative as well.

A more thorough investigation of Wilby's credentials should have been completed by the employment agency especially since the director knew he was not dealing with the real Hume.

The Knott Company was disarmed by the apparent outstanding performance and charming personality of their wily employee. The firm should have been a bit more aware of the internal control mechanism of separation of duties; rather than relying on the convenience of an in-house repairman, vice the expense it should have employed a disinterested serviceman.

Wilby was able to rise smoothly above the few questions that were raised. As stated in the original case "... such strange things have happened that we cannot count on anything."

This case demonstrates the value of personnel who raise critical questions. It is a matter of judgment whether to pursue such information but the Knott Company could have benefitted if it had not placed such faith in its employee.

2. Rockwell International Corporation

Rockwell expected to save a lot of money by leasing computers from third parties rather than buying or renting them from manufacturers.

Instead the company became a victim in the computer-leasing fraud carried out by OPM Leasing Services, Inc.

A recent court-ordered investigation has revealed that poor financial and management controls made the company an easy mark.

The practices which facilitated the fraud included the following:

-- Rockwell's lawyer in charge of computer leasing allowed his secretary to keep a stack of pre-signed legal opinions that sometimes were attached to unread leases ... Rockwell officials also didn't attend lease closings and thus wouldn't be able to notice when documents had been doctored or switched.

-- Bad record-keeping hurt the company too. Officials often didn't keep track of lease documents, make copies, or note when papers were missing. Thus Rockwell had no way to determine whether computers listed on a particular lease presented by OPM for execution had already appeared on a prior lease

which happened in some cases. That allowed the swindlers to fraudulently secure bank loans for equipment never bought or delivered to Rockwell.

-- Leases often specified payments were to be sent directly to the banks that had financed the computers. Instead, Rockwell often paid OPM with the belief the money would be forwarded to the bank. OPM, however, frequently missed the payments. Disregarding direct payment obligations facilitated the fraud and derogated the legal rights of the financing institutions.

-- Rockwell apparently suspected that management of its computer leasing wasn't as tight as it could be. Internal audits in 1979 and 1980 concluded too much responsibility was concentrated in the hands of the director of computer planning and his role was reduced but he continued to help OPM land most of the computer leasing contracts despite Rockwell's growing reservations about OPM's honesty and financial soundness.

-- Rockwell's chief financial officer ordered an examination of OPM's financial statements to determine the company's soundness. Mr. Goodman of OPM gave Rockwell's treasurer a bogus financial statement. He testified that Rockwell's director of computer planning had told him not to worry about the financial review since the treasurer ' ... doesn't understand financial statements anyway, so you can double talk your way around it. And you should have no problem.' This was an accurate prediction since the treasurer did not notice the absence of a date on the auditor's report or the inadvertent inclusion of cash and marketable securities in the receivables subtotal. He focused on net worth, finding the grossly inflated $44.9 million figure satisfactory.

-- Rockwell officials learned in 1980 that the OPM swindlers had pleaded guilty to check kiting charges in a separate matter but the company continued to conduct business with OPM until 1981.

Rockwell has denied that its management, recordkeeping or financial controls contributed significantly to the fraud but the company has agreed to adopt new leasing rules requiring: top officials to approve all third-party

leases; the company to keep lease documents and copies in a central filing system and make lease payments only to the people who are supposed to be paid; company lawyers give an opinion about proposed lease contracts and be present when they are signed. [Ref. 46]

It is clear that failure to follow established policies and guidelines, inattention to detail and ineffective management oversight greatly contributed to this fraud. Such concerns are related to internal administrative controls but have the potential to generate large financial losses.

Better management controls in the following areas could have prevented this fiasco: a more careful selection of qualified and trustworthy personnel, more formal legal procedures, more rigid recordkeeping, and tighter financial administrative controls.

The narrow range of internal accounting controls fails to recognize the importance of such concerns as adherence to management policies or operational effectiveness or efficiency. This case illustrates the tremendous losses, estimated at $600 million which can be suffered by a company which fails to focus enough attention on the enforcement of internal administrative controls.

3. General Dynamics

A federal grand jury indicted two former General Dynamics executives for receiving kickbacks in connection

with construction of liquified natural gas (LNG) tankers and Navy nuclear submarines. The two named in the indictment were P. Takis Veliotis and James H. Gilliland.

The indictment states the kickbacks were arranged through Frigitemp Corporation, a General Dynamics subcontractor which provided interior fixtures and insulation for ships. Frigitemp was declared bankrupt in 1979 but its subcontracts were transferred to another company so the scheme could continue. A vice president and the chairman and chief executive officer of the subcontractor were also indicted for arranging and making the kickback payments.

The kickback scheme began in 1973 and 1974 when Frigitemp realized that kickbacks to Veliotis and Gilliland would ensure winning the subcontracts. As ten of the LNG tankers were built, Frigitemp received more than $44 million in subcontracts. The awards were made: in one instance even though the shipyard's purchasing department had recommended a previous bidder; in another instance, even though the time specified for the receipt of bids hadn't expired.

Funds for the scheme were generated by having Frigitemp pay for non-existent consulting services and raw materials. These costs were passed on to the prime contractor who in turn passed some of them on to the federal government.

When subcontracts were awarded to Frigitemp for two of the tankers, shipyard employees protested that the bids

submitted by the subcontractor were far in excess of competing bids. [Ref. 47]

Despite the facts that: adequate procedures were established in the area of contract administration; shipyard employees protested the awards, and the Navy questioned cost overruns, management was able to render the controls ineffective. This case illustrates the limitations of internal controls when management colludes and overrides them. It also shows the value of fostering a critical attitude among employees so that they may bring concerns to management's attention.

4. Touche Ross

A Wall Street Journal article [Ref. 48] states that the SEC recently charged one of the "Big Eight" auditing firms with failure to examine the company's financial statement in accordance with generally accepted auditing standards.

The surface shipyard signed contracts worth $3 billion to build destroyers and helicopter carriers for the Navy. For several reasons, including blunders in production, the contractor's expenses began ballooning. Rather than recording the burgeoning expenses as losses when incurred, the company deferred them in the hopes that the Navy would pay the extra bills.

The SEC said that the auditing firm should not have acquiesced to the contractor's deferral of the losses. Although the auditor had issued qualified opinions subject

to uncertainties over the dispute, the SEC stated that the auditing firm should have known that the contractor was unlikely to escape without losses and therefore, should have recommended that the company recognize at least some of the losses earlier. Further, the SEC felt that the auditor should have challenged management about the contract losses.

The contract dispute ended in 1978 with the company accepting a $200 million loss on Navy work.

Although this article primarily addresses the fairness of the presentation of financial statements and thus is closely tied to internal accounting controls, it also indicates that management's failure to deal with problems in program or operational areas can quickly be translated into financial ones. Even if controls as established are adequate, failure to follow them negates their value.

This particular case also raises concerns about the apparent willingness of audit firms to accept management's views without maintaining a healthy skepticism or exercising the professional judgment gained through numerous audits.

5. Itel

Another Wall Street Journal article [Ref. 49] discusses a court-ordered examiner's report that asserted Itel's collapse was caused by decisions of top management and the failure to act by the company's outside lawyers, auditors, and directors.

'There was substantial failures by the company's management and legal counsel to make full disclosures of significant facts and developments' and the auditing firm 'breached its contractural duties to perform an adequate audit' and to inform the company's directors of the seriousness of its weaknesses of internal controls.

The central cause of these breaches was the dominant management style of the company's president who believed that controls would 'stifle entrepreneurship' and threaten the 'ambience' of the company.

As a result, the company's management style and attitudes, weak internal controls, major business problems, and heavy debt combined to force the corporation's financial collapse in 1979.

The report said that its 'criticism of outside directors related not to improper actions but to their lack of actions. They did not conduct the kind of oversight function one might have expected.'

Finally, the report stated that the 1978 and 1979 financial statements 'contained materially false and misleading information.'

This case illustrates what can happen when management control and internal accounting and administrative controls are not enforced or are nonexistent.

The last two cases dealing with the private sector are extracted from Professor San Miguel's forthcoming book. [Ref. 50]

6. Penn Central Transportation Company (PCTC)

One of the largest mergers in industrial history (in terms of assets) was the marriage of the Pennsylvania Railroad and the New York Central Railroad in 1968. Two years later, the combined entity became one of the largest bankrupt organizations in history. Some of the reasons listed for the collapse include a lack of flow forecasts, lack of a costing system, creative accounting, lack of budgetary control, and improper asset valuation. More specifically, management incorrectly charged operating expenses to capital, allowed the crediting of uncollectibles to income, recognized gains on the transfer of assets from one subsidiary to another, and made loans to subsidiaries and then recorded the cash flowing back to the parent company as dividends. One analyst commented that these practices turned a $95 million actual loss in 1969 into a reported profit before extraordinary items of $4.4 million. Such practices are intentional perpetrations by management and it is doubtful that any internal control system could have prevented them.

However, other unintentional deficiencies in internal control appear to have contributed to the collapse. Evidently, PCTC operated filthy trains on rails in serious disrepair. Service was very poor with trains often missing scheduled arrivals. Apparently, an employee and management performance evaluation system was not in place to prevent such poor business practices and supervision. These matters related

to operational efficiency and managerial policies, administrative concerns overlooked by the narrow definition of internal control. In addition to lack of management communication flowing down into the organization, an inadequate management information system prevented proper information from flowing up to management. Just prior to collapse, the Department of Transportation requested a cash flow forecast in response to the company's bail-out request to the federal government. However, no such forecast was forthcoming due to the inadequate records. Ironically, 17 members of the board of directors were bankers. On June 21, 1968, PCTC ran out of cash and filed for bankruptcy.

Although internal controls might not have prevented management's manipulation of accounting policies, they might well have prevented cash insolvency. Preparation of a statement of sources and uses of cash for 1962-67 would have shown:

SOURCES AND USES OF CASH
(in million $)

Sources:	
Rail Income	$ 380
Non Rail Income	350
	730
Uses:	
Interest	200
Dividends	450
Capital Expenditures	1200
	1850
Decrease in Cash	$1120

It appears that periodic preparation and review of cash flow forecasts would have highlighted the significant cash outflow and future cash shortage. Also, it would appear that the board of directors did not inquire into the cash flow situation until it was too late. Since such information plays a vital role in the safeguarding of assets (especially cash), it qualifies as an element of internal accounting control. In the case of PCTC, this element was seriously lacking.

7. W. T. Grant

Unlike the bankruptcy of Penn Central, the public was not surprised by the failure of W. T. Grant. The financial papers regularly printed stories concerning this retailer's financial woes during the year prior to bankruptcy. The 1973-74 recession served to accelerate the company's decline and brought about its financial death in 1975.

Analysts have cited these reasons for failure: an overly aggressive expansion program (612 new stores between 1963 and 1973), lack of uniformity among stores, lack of management skill and merchandising focus, excess inventory due to a wide product line, and a switch to a cash draining revolving customer credit program. To fund the expansion program, management raised debt inflating the company's debt/equity ratio to .7 in 1972 (one of the highest ratios of any major merchandiser). Additionally, the company paid

out dividends on common stock in fiscal 1973 and 1974 equal to 128% of the earnings available to common stockholders. The high interest rates and credit crunch of 1974, combined with the cash strains inflicted by management, were sufficient to squeeze the last drops of liquidity out of the company. Other signs of failure existed long before the insolvency. Sales per square foot ranged between $32 and $35, less than half of the rates obtained by Grant's competitors. Poor store site locations were cited as a contributing factor to the sales volume falling below those of competitors. Between 1968 and 1972 Grant's sales increased 50% because of the numerous new stores opened but earnings remained flat.

The Grant's failure does not appear to be primarily due to weak internal accounting controls (as narrowly defined) but to weak administrative controls. A close monitoring and forecasting of cash flow and policies to retain cash would have helped maintain Grant's liquidity. Consistent with steps to protect liquidity, slower growth and efforts to increase the profitability of existing stores. Such considerations are not encompassed by the narrow definition of internal control yet are basic to the interests of investors, creditors, and employees, suppliers, and others who must suffer the consequences from such a significant bankruptcy.

Although the W. T. Grant's litigation is not yet completed, serious questions have been raised concerning the adequacy of controls over accounts receivables and inventories. When compared to the control systems used by other large retailers, the internal controls for Grant's receivables and inventories were deficient. Also, the company had a very small internal audit staff. These allegations of inadequate internal controls are more related to the narrow concept of internal accounting control.

C. PUBLIC SECTOR

1. Introduction

The Defense Audit Service has provided examples of adverse conditions due to weaknesses in internal control. This sample of cases will focus on administrative controls primarily but will mention some illustrations which deal with accounting controls as well. This approach is used to show that within an organization the controls which encourage operational effectiveness and efficiency and the adherence to managerial policies and procedures provide a framework within which to integrate internal accounting controls.

2. Separation of Duties

The lack of separation of duties resulted in the embezzlement of almost $2 million over a 3-year period from the DOD Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). The program pays non-Government

hospitals and doctors for the medical care of eligible military personnel and their dependents. Because of poor internal controls, a civilian program administrator was allegedly able to embezzle funds by preparing and certifying over 3,300 phony medical claims. The administrator was responsible for processing and approving all claims received under this program.

3. Physical Security

Imprest funds were often exposed to the risk of loss, theft or misuse because not all agencies were adequately controlling, safeguarding or managing millions of dollars in such funds. One fiscal office that was not following GAO and Treasury requirements to safeguard funds lost about $209,000. The office kept its imprest funds in an unlocked cashbox stored in a safe which was accessible to several people other than the cashier.

4. Segregation of Duties Involving Government Transportation Requests (GTRs)

In many locations GTRs were susceptible to conversion for personal use because of inadequate safeguards and controls. These documents are issued to Federal employees to be used in place of cash to pay for travel on official business. Over a 2-year period, an employee at one location converted several GTRs, amounting to more than $30,000, for personal use. He was able to do this because he had total control over acquiring, maintaining, issuing and accounting for these easily convertible documents.

5. Payroll Control

Payroll preparation, processing, distribution and related activities are common areas of fraud, waste and abuse. False statements on time and attendance documents are a most frequent problem. In one case, a Government employee was responsible for maintaining time and leave records and sending the information to the agency's central payroll office. The individual added fraudulent overtime hours to her own payroll data before sending it to the payroll office. This same individual distributed the payroll checks. The fraud was detected because the timekeeper was absent on a day when the payroll checks were received for distribution. Her supervisor distributed the checks and noticed the time-keeper was receiving excess pay. The individual received $3,200 in fraudulent overpayments before being caught.

6. Personnel Control

False statements on employment applications are the most frequently encountered problem. For example, several DOD cases involved the fraudulent enlistment of illegal aliens into a military service. The aliens enlisted by presenting false birth certificates or other false proof of U.S. citizenship. In another case, a recruiter, under pressure to fill his quota of enlistments, allegedly en-couraged a recruit not to disclose his police record.

7. Control of Foreign Military Sales

Unfunded civilian personnel retirement costs were not billed to FMS overhaul and repair cases because the repair facilities performing the overhaul were not including a charge for unfunded civilian retirement. This situation occurred because implementing instructions had not been issued to repair facilities requiring the inclusion of 13.4 percent for unfunded civilian retirement costs. At least $566,000 was not charged to FMS customers during FY 1979 for unfunded civilian retirement.

8. Control of Support Services

Office furniture was not accounted for and was subject to theft or misuse. Records were not maintained to identify the quantity or the condition of furniture turned in for storage. Documentation was not available to support furniture disposals. After furniture was issued from the stock fund, no further accountability was maintained.

9. Adequate Documents and Records

A naval air station found that a SERVMART was not returning a copy of the SERVMART Shopping List (NAVSUP Form 1314) to the ordering unit/command, setting up the possibility of the ordering of unauthorized/unnecessary items/quantities of material.

10. Authorization Procedures

A naval air station found a lack of internal control over the receipt, issue, and recording of small arms

ammunition being passed from ordnance personnel to activity units. 73,000 rounds were determined to have been issued to personnel who were either not authorized to requisition the ammunition, or not authorized to receipt for or pick up ammunition. Also there was no separation of duties for receipt, issue, and record maintenance functions performed by ordnance personnel.

D. CONCLUSION

In assessing these cases which span approximately forty years, consideration should be given to what has been learned.

In the 1940's, Wily Wilby effectively manipulated the "foolproof" accounting system of the Knott Company because of the company's lax administrative and clerical procedures.

Despite the fact that business firms and governmental agencies have institutionalized the audit function, both internal and external, and recently passed legislation has attempted to ensure the establishment of adequate systems of internal accounting control in both the private and public sectors, current examples indicate that such a narrow emphasis does not ensure a well-managed (controlled) business or necessarily lead to attaining the goals of safeguarded assets and reliable accurate accounting records.

Management should focus, instead, on the intertwined administrative and accounting controls which together lead

to effectively and efficiently attaining program and operational objectives, as well as financial and administrative ones.

Yet, the picture presented is not quite so bleak. A final private sector case is presented illustrating a recognized system of internal control. It should be kept in mind that this example focuses on the commercial sector's performance measures of profit and loss and that each organization is unique and its internal controls must be adapted to that situation. Even so, much can be learned from this presentation.

1. <u>International Telephone and Telegraph Corporation (ITT)</u>

This discussion will center on the sections of a case [Ref. 51] which deals with the establishment and operation of ITT's Business Plan. The reader should keep in mind DOD's PPBS budget process as well as Anthony's Management Control framework as he or she proceeds.

ITT attributes much of its success to an extensive system of financial reports it uses to control its operating units. The system measures progress in the conventional sense of sales, earnings and return on investment and forces operating personnel to focus their attention on critical areas and to think beyond the problems at hand to longer range objectives and strategy.

The annual Business Plan, the primary document of the reporting and control system is extremely comprehensive.

It is used as the primary standard for evaluating the performance of unit managers.

Each January, the regional headquarters sets tentative objectives for the following two years for each of its operating units. This 'first look' is an attempt to provide a broad statement of objectives permitting the operating units to develop their own detailed Business Plans. Objectives are established for both the unit as a whole and for each separate product line.

For each of the many product lines, objectives are established for five key measures:

Sales
Net Income
Total Assets
Total Employees
Capital Expenditures

From January to April, these tentative objectives are 'negotiated' between the regional headquarters and the operating managers.

During May, the negotiated objectives are reviewed and approved by the regional and corporate headquarters. These final reviews focus primarily on the five key measures noted above.

In June and July, the unit prepares its Business Plan, describing in detail how the subsidiary intends to achieve its approved objectives for the following two years.

The Business Plan is broad in scope, beginning with a brief one-page financial and operating summary comparing data for:

Preceding year (actual date)
Current year (budget)
Next year (forecast)
Two years hence (forecast)
Five years hence (forecast)

This summary contains information dealing with the following measures for each of the five years:

Net Income
Sales

Total assets
Total capital employed (sum of long-term debt and net worth)

Receivables
Inventories
Plant, property and equipment
Capital expenditures
Provision for depreciation

% return on sales
% return on total assets
% return on total capital employed
% total asset to sales
% receivables to sales
% inventories to sales

Orders received
Orders on hand

Average number of full-time employees
Total cost of employee compensation
Sales per employee
Net income per employee
Sales per $1000 of employee compensation
Net income per $1000 of employee compensation

Sales per thousand square feet of floor space
Net income per thousand square feet of floor space

Expected changes in net income for the current year and for each of the next two years are summarized according to their cause.

This analysis forces operating managers to appraise the profit implications of all management actions affecting prices, costs, volume or product mix carefully.

These condensed reports are followed by a complete set of projected financial statements for the current year and for each of the next two years, with supporting detail provided for major items on the statements.

The Business Plan contains a description of the major management actions planned for the next two years with an estimate of the favorable or unfavorable effect of each one in monetary terms.

Separate plans are presented for each of the functional areas: marketing, manufacturing, research and development, financial control, and personnel and employee relations. These plans state the function's mission, an analysis of its present problems and opportunities, and a list of specific actions projected for the next two years.

The Business Plan closes with a series of comparative financial statements which depict the item-by-item effect if sales fall to 60% or to 80% of forecast or increase to 120% of forecast. For each of these levels of possible sales, costs are divided into three categories: fixed costs, unavoidable variable costs, and management discretionary costs. Management describes the specific actions it will take to control employment, total assets, and capital expenditures in case of a reduction in sales and also indicates when these actions would be put into effect.

By mid-summer the completed Business Plan is submitted to company headquarters and in the early fall meetings are held at the regional headquarters to review each unit's Business Plan. At these sessions, top management often proposes changes before final approval of a unit's individual plan.

The approved plan forms the foundation of the following year's budget. The budget's general design follows the Business Plan's format except that the various dollar amounts are broken down by months.

Every unit submits standard periodic reports to the regional headquarters on a fixed schedule. Then computer processing facilitates combining the results regionally and for the entire corporation.

The main focus in the reports is on the variance between actual results and budgeted results. Data are presented for both the latest month and for the year to date. Differences between the current year and the prior year are also reported.

Thirteen different reports are submitted by the unit Controller on a monthly basis including:

- Statement of preliminary net income (within the first week after close)
- Statement of income
- Balance sheet
- Statement of changes in retained earnings
- Statement of cash flow
- Employment statistics
- Status of orders received, cancelled and outstanding

Statement of intercompany transactions
Statement of transactions with headquarters
Analysis of inventories
Analysisis of receivables
Status of capital projects (due last day of each month)
Controller's monthly operating and financial review
(20 or more pages)

The final item contains an explanation of the significant variances from budget, as well as a general commentary on the financial affairs of the unit.

In addition, twelve other reports are required, either quarterly, semi-annually, or annually.

A unit's periodic financial reports are reviewed by a financial analyst. This review focuses on a comparison of performance against budget for the five key measures -- sales, net income, total assets, total employees, and capital expenditures. Trouble spots or developing trends are detected. The written portions of the reports are also carefully reviewed.

Although revisions of the forecasts are permitted, if the planned objectives are not met the situation is considered serious.

Guidance is available from specialists or the product-line managers for unit managers who request help with their operations.

Although the comprehensive reporting and control system makes it appear that ITT is a highly centralized organization, the managements of the various operating units actually have considerable autonomy.

As can be seen, the Business Plan of ITT has a number of similarities to, and a few differences from, the PPBS cycle used in DOD.

A similar structure and process is followed. The private company's regional and corporate headquarters can be compared to DON's major claimant and Washington headquarters staffs. In both systems, objectives are set after a period of negotiations. Each organization establishes budgets for individual units, as well as functional programs. Each organization requires justification for funding requests and each budget goes through an elaborate approval process. The Business Plan serves as the basis for a unit's budget; the POM provides a basis for the military budget. Both sectors have a reporting system, but the one presented in the case is more extensive. In both situations, the budgeting system implies a highly centralized organization but in fact, most of the individual units are quite autonomous.

Differences between these two systems include: The PPBS system must work through many more layers -- the President, Congress, DOD, Navy, and finally the individual activity -- and in a political atmosphere, making control more complicated; the military does not use the budget as the primary standard for evaluating the performance of its managers, but focuses, instead, on the level of mission/ program attainment -- a subjective measure; the military budget is more amenable to adjustment than a unit's Business

Plan; the military service does not plan as carefully for under-or over-budget possibilities; nor does the military budget address management plans.

Some of these differences could be adapted for federal government use.

ITT's Business Plan presents a concrete example demonstrating a Planning (what is to be done) and Control system (how it is to be done). Elements of strategic planning, management control, and operational control can be found in the design. And it is clear that money is the common denominator among the heterogeneous inputs and outputs of the individual units.

The focus is on management control. The management accounting information that is gathered provides management data which assures managers that resources obtained are used effectively and efficiently in the accomplishment of the unit's objectives.

When performance is reviewed, a comparison is made of budget figures with actual figures but the written portions (nonquantifiable and nonmonetary data) of the reports are also carefully reviewed. Thus, rigid conformance to plan is not the only standard of measurement since within the management control system, administrative and accounting information are both considered.

VII. CONCLUSIONS AND RECOMMENDATIONS

A. INTRODUCTION

The definition, objectives, and concepts of internal control in common use today reflect the specialized needs of the independent auditor.

There is little material adapting the existing writings to the broader needs of managers who require a focus on all systems, not just those which provide financial information.

This section will discuss some pertinent comments of the Special Advisory Committee on Internal Accounting Control that are directed to private sector managers' concerns but are equally applicable to the public sector; then specific considerations and recommendations for the public sector will be offered; finally a brief concluding statement is made.

B. REMARKS

As the Special Advisory Committee on Internal Accounting Control commented in 1979:

> Management is necessarily concerned about all of the controls contemplated in the 1949 definition of 'internal control' ... controls that help to promote efficient and effective operations have been, and will continue to be, of vital importance to management. Also ... administrative controls may have a bearing on the selection and effectiveness of an (organization's) accounting control procedures and techniques ... administrative and operating procedures focusing upon specific business activities often complement accounting control procedures ... as business transactions and the procedures necessary to execute them become more complex, the difficulty of distinguishing between accounting and administrative controls is increased. [Ref. 52]

Thus managements' interests go beyond the confines of the narrow legal interpretation of the FCPA or the FMFIA to include all controls. As Grady stated in 1957 "... there are many endeavors wherein a broader concept of responsibility results in a lesser risk ..." Since his statement was made, events in both private and public sectors have demonstrated the shortcomings of the narrow application of internal accounting controls.

A further comment of the Special Advisory Committee which is equally adaptable to private and public organizations states:

> The wide range in the size of these (organizations), in their operating styles, in the complexity of their transactions, in the diversity of their products (programs) and services, and in the geographical dispersion of their operations clearly makes it impossible to enumerate specific controls that will answer the needs of all (organizations). [Ref. 53]

Thus, since internal control must be situation specific, it has created difficulty in the public sector in the coordination and summarization of reports and certifications throughout organization structures. Similar potential problems exist in the corporate environment as well, but private sector managers are not currently required to report on the state of their internal control in quite as comprehensive a manner as public sector executives do.

Other statements of the <u>Report</u> require consideration by the spectrum of managers:

- Control procedures and techniques have evolved ... based on the judgments of individual managements of their necessity and usefulness in specific circumstances.

- Subjective knowledge, experience, specific industry (programs) and business conditions, management style, cost-benefit judgments ... affect the selection of appropriate control procedures and techniques ... there is a necessary element of subjectivity inherent in an evaluation by management of internal ... control.

- ... there is not sufficient empirical knowledge of how extensively control procedures and techniques are employed ... the lack of knowledge of what (is) necessary for purposes of effective internal ... control further complicates the task of evaluation.

- (organization) do not have a comprehensive theoretical model to use in making informed, supportable judgments on the cost-benefit decisions implicit in developing their ... procedures and techniques. [Ref. 54]

These comments restate the themes that internal control is situation specific and that subjective knowledge and professional judgment are required in the establishment and maintenance of a proper system.

C. PUBLIC SECTOR CONSIDERATIONS

The following comments are presented specifically for public sector managers' consideration:

- That the agencies directing the implementation of the internal control program within the federal government will recognize the value of emphasizing a management control framework which promotes the accomplishment of organizational goals and objectives; and within which administrative controls promote program and operational effectiveness and efficiency and support managerial policies, and accounting controls safeguard assets and provide accurate, reliable financial data.

- The support of senior line managers is critical and should be gained with the focus described above since this broader concept is the only meaningful way in which internal control can be related to such managers' responsibilities and interests in accomplishing the goals and objectives of the organization. A narrow focus on internal accounting control, aiming to avoid legal problems, will not encompass these managers' wider concerns.

- Once this broader focus is cemented, training courses should be established which support this direction and give a more refined set of guidelines for the establishment and review of internal control systems than are currently available. The Arthur Anderson & Company approach mentioned previously should be a useful beginning because of the inclusive nature of their program.

- More research into the state of the art concerning systems of internal control with an emphasis on the concerns of managers is needed. Lessons learned could be presented in case study format so that organizations could easily adapt useful ideas to their unique situations. These same case studies could be useful in the aforementioned training courses.

- Since most control measures are based in large part on the fact that human beings make mistakes and often do not react to problems by undertaking adequate and prompt corrective action, the more qualified employees are, the more they will perceive deviations from plans and take timely action to prevent them. The most direct form of all control is to take steps to ensure the high quality of employees, commensurate with their responsibilities and at reasonable cost.

- A large measure of professional judgment is required to maintain and evaluate a dynamic internal control system.

- Some thought should be given to the documentation of internal controls in common management/administrative areas by the cognizant organizations to avoid the redundant effort otherwise required by each individual activity.

D. CONCLUSION

It is recognized that the internal control concept is in a state of transition in the public sector. Even as organizations struggle to establish systems based on the broad definition, OMB and DOD are narrowing the scope to internal accounting control to meet the FMFIA objectives. This shift can only add to the confusion of implementing a little understood program. However, this narrowing does make it easier to assess internal control by looking at information that is readily quantifiable and innovative approaches, such as the Burns System, can be useful here. Such an approach fails to consider management's broader range of responsibility for accomplishing its programs and operational activities efficiently and effectively within prescribed policies, as well as safeguarding its assets and maintaining accurate, reliable accounting data.

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